



# **NAVAL POSTGRADUATE SCHOOL**

**MONTEREY, CALIFORNIA**

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## **MBA PROFESSIONAL REPORT**

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**An Analysis of the U.S. Navy's Military Housing Privatization Initiative  
and the Application of Transaction Cost Economics as a Component of  
the Decision Framework for the Establishment of Future Partnerships  
Between the Department of Defense and Private Sector Industry**

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**December 2004**

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INITIATIVE AND THE APPLICATION OF TRANSACTION COST  
ECONOMICS AS A COMPONENT OF THE DECISION FRAMEWORK FOR  
THE ESTABLISHMENT OF FUTURE PARTNERSHIPS BETWEEN THE  
DEPARTMENT OF DEFENSE AND PRIVATE SECTOR INDUSTRY**

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The Navy's innovative use of the joint venture authority has facilitated the renovation and creation of military family housing at an unprecedented scale and pace. This study provides an overview of the Navy's use of the joint venture authority. Additionally, the concept of Transaction Cost Economics is explained and applied to the Navy's contracting template for analysis.

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## **I. INTRODUCTION AND OVERVIEW**

Since the end of the cold war there has been a steady drive for the military to cut costs and operate more efficiently. One of the methods recognized as an effective is privatization. There are numerous success stories of how privatization initiatives have saved the government money. There are also a number of stories of how privatization was ineffective, more costly, or was not embraced by the Services. This project will study the (MFH) privatization initiative. It will explain the history of MFH, MFH privatization initiatives specific to the Navy, define and explain Transaction Cost Economics (TCE), discuss how TCE can be applied to the MFH privatization process, and consider what lessons can be applied to improve the MFH privatization program.

There are numerous reasons why military housing is a good candidate for privatization. First, providing housing for military families is not “inherently governmental”, which allows outsourcing. Second, military family members have lived in inadequate housing for decades.

Chapter II will examine past MFH privatization initiatives. Quality housing became a high priority issue for the Department of Defense (DoD) in the 1990s. In 1995, Defense Secretary William J. Perry established the Quality of life Task Force charged with reviewing the DoD’s quality of life policies and housing programs. The Task Force found major flaws with the MFH program and recommended that Congress approve new initiatives including allowing DoD to form partnerships (joint ventures) with private sector investors to obtain needed funding. The joint venture initiative would allow DoD to access private sector capital and industrial resources for constructing new developments and renovating existing housing inventory. The Task Force also called for an increase in housing allowances to eliminate out of pocket expenses for service members. Many previous programs, including the Wherry, Capehart and Section 801/802 programs, had failed to fully address the housing problem. The National Defense Authorization Act of 1996 (P.L.104-106) created twelve authorities the Services could use to enhance MFH. Initially, military housing privatization initiative (MHPI)

implementation was slow due to the complexity of the program and the need to apply it effectively across the four Services. To address this issue, the Office of the Secretary of Defense (OSD) Competitive Sourcing and Privatization Office devolved the program to the Services, which facilitated a more rapid implementation of the privatization program.

The Navy and Marine Corps have made extensive use of the joint venture authority. Their concept is known as Public Private Ventures (PPV). In a PPV program, the military partners with private industry to form Limited Liability Companies (LLC). The Navy and the private industry partner both provide equity to fund the partnership. The private partner then obtains the remaining funding from reputable lending institutions. The Army uses the Request for Qualifications (RFQ) process for their MFH privatization program. Under this process, the builders submit proposals for new housing developments with the contract awarded to the best-qualified builder. Additionally, the Army guarantees occupancy over a lengthy period. The developer will leverage the guarantees for up front loans to renovate existing housing and perform required maintenance. When the contract expires, the housing units remain Army property. The Air Force implemented its housing program similar to the Army's RFQ process. However, its program focused on small developments away from operational areas. Also, the housing units could be sold if there was no occupancy due to such contingencies as a base closure.

Chapter III will examine the Navy's PPV program in more detail. The mechanics of how the Navy partners with a private company to form an LLC will be explored. Additionally, PPV implementation is a complicated process that requires government oversight and support. The Naval Facilities Engineering Command (NAVFAC) Special Venture Acquisition (SVA) Division has provided the necessary support and oversight to effectively implement this program. Chapter III will also explain the business model of the PPV and how funds are raised for housing projects.

Chapter IV will explain the concept of Transaction Cost Economics (TCE). TCE is an analytical tool allowing managers to determine if a product should be maintained within an organization (vertical integration) or obtained externally (privatized). TCE may also help managers systematically analyze and support their decision making

process. The TCE decision-making framework can be applied to MFH privatization determinations and point out weaknesses and concerns once a decision to privatize has been made. Managers knowledgeable in TCE can then become more attentive to potential problems and conflicts and act to minimize opportunistic behaviors on the part of private partners.

Chapter V will examine the Navy's application of TCE concepts in its PPV program. It will also look at some specific situations where opportunistic behaviors may be a problem, and what has been done to minimize those risks.

Chapter VI will expand on the Navy's lessons learned process in regards to PPV and explain the use of their Program Manager's Guide as a dynamic tool for collecting feedback from field representatives. Furthermore, the Navy's application of those lessons learned will also be covered.

Lastly, Chapter VII will provide conclusions and recommendations for DoD and the Navy's MFH privatization programs and the application of TCE to these initiatives. The project also recommends areas for future research.

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## **II. BACKGROUND: MILITARY HOUSING PRIVATIZATION INITIATIVE**

### **A. INTRODUCTION**

This chapter provides a history of the Department of Defense's (DoD) new military housing privatization initiative. It also reviews past housing initiatives, the motivations for the new attempt to fix DoD family housing problems, how the new initiative started, what it has accomplished, and current status.

### **B. THE MARSH QUALITY OF LIFE TASK FORCE**

After decades of receiving a low level of attention, quality of life issues became a top priority issue for DoD in the 1990s with good reasons. According to a comprehensive survey conducted in 1994 by the U.S. Army Research Institute for the Behavioral and Social Sciences, quality of life, pay, and housing topped a list of 53 reasons soldiers gave for leaving the Army. (The Marsh Report, 1995)

In 1995, Defense Secretary William J. Perry established the Quality of Life Task Force, which was headed by former Secretary of the Army Jack Marsh. The task force, comprised of former military leaders and outside experts, was to review the military's current quality of life policies and programs (Housing, Personnel Operations Tempo, and Community and Family Services), and to provide recommendations to improve the quality of military life.

Many senior members of the defense department recognized housing as part of a bigger military quality of life equation, linked directly to the Armed Forces' readiness, recruitment and retention. At an Installation Commanders' Conference in January 1995, Secretary Perry spoke:

There are a few human needs in life more basic or important than a decent place to live. Housing is certainly on our people's mind. Everytime I visit an installation and sit down with enlisted folks to hear their concerns, they bring up housing. We have a special duty to ensure quality housing. (The Marsh Report, 1995)

At that time, DoD owned or leased about 387,000 family homes, with an average age of 33 years. Deferred maintenance, repair, revitalization, and replacement costs had reached almost \$20 billion, and 64 percent of those military homes were classified as “unsuitable.” (The Marsh Report,1995) The Task Force found four major flaws with the current military family housing program financed through appropriated funds:

- Funding was not sufficient to produce, maintain and operate quality housing adequately, as it was subject to cyclical changes often caused by political decision making, tight budgets, and competing priorities.
- Current “scorekeeping” rules discouraged the use of private sector resources.
- Housing policy was unclear, incomplete and lacked the vision and strategy to effect change. The current policy promoted inequality between married and single service members, between residents of quality versus poor military housing, as well as resident of military housing and members residing off-base.
- Many federal laws and regulations prevented the Defense Department’s usage of resources and best advantage of private industry.

To resolve these problems, the Task Force recommended that the DoD focus on four housing goals:

- **Goal 1** Assure service members and eligible civilians access to affordable, quality housing.
- **Goal 2** Support near-term efforts, such as new legislative authority being considered by the 104<sup>th</sup> Congress, to expand housing resources and widen their impact.
- **Goal 3** Address other key near-term issues that impair housing delivery or cause members and families concern, such as policies, standards, procurement laws and regulations, and funding.
- **Goal 4** Identify an effective structure for an alternative Defense Department system to deliver and maintain quality housing at affordable, commercially comparable costs.

To meet these goals, the Task Force recommended a three stage strategy be developed and implemented over three years. (See Figure 1)



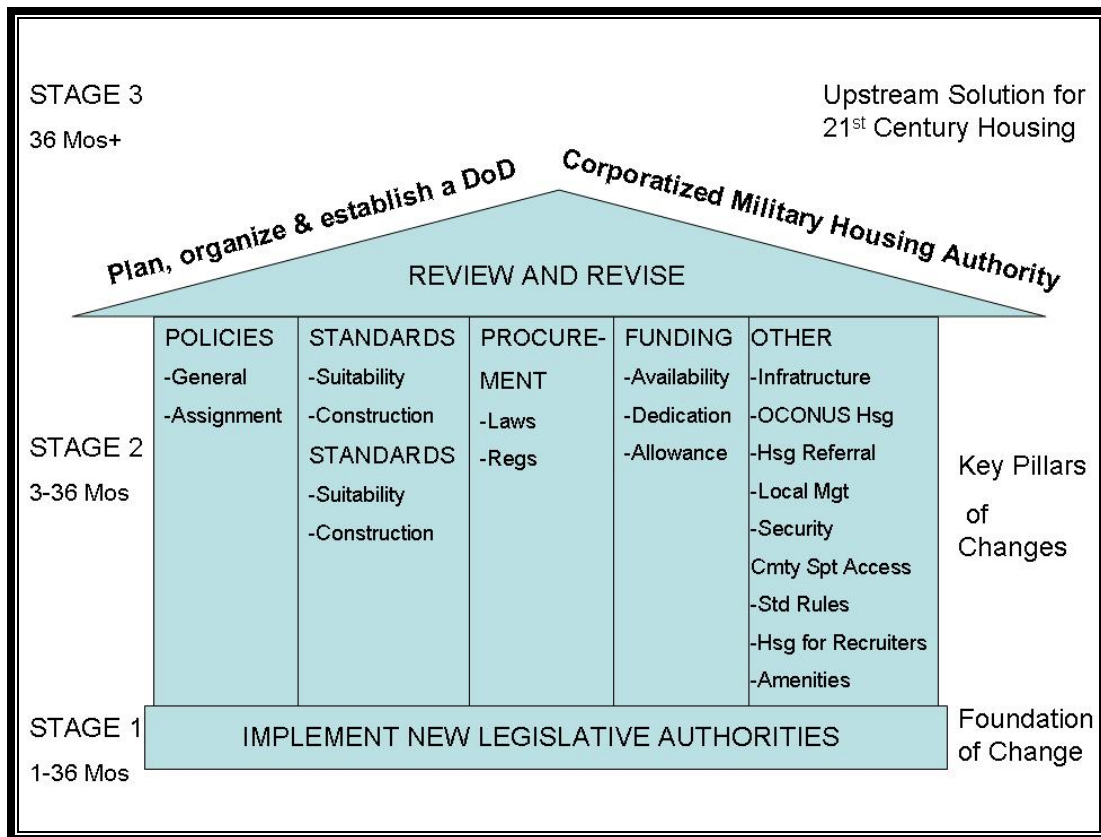


Figure 1. Three Stage Strategy [From the Marsh Report]

Stage 1 served as the catalyst for all future changes regarding military family housing. The Task Force urged DoD to seek Congressional approval of new initiatives that would enable the military to partner with private investors, thus maximizing private sector funding. These initiatives would enable access to private capital at reduced risk to the private investor and provided the DoD an array of tools for constructing new and modernizing existing housing.

During Stage 2, the Task Force called for increases in housing allowances, eventually eliminating out of pocket expenses for service members, using relevant data such as the Housing Cost Index of the Consumer Price Index. The Task Force also urged DoD to fence funding to aggressively revitalize existing bachelor housing and to prioritize use of appropriated funds to maintain/revitalize the current inventory, seed private sector joint ventures and only build new homes where the local communities were not willing or unable to provide housing.

To totally solve the housing problem, the Task Force recommended a “corporatized” Military Housing Authority be established. This Authority, similar in concept to numerous state quasi-governmental agencies like or similar to the Australian Defence Housing Authority, would manage all aspects of the future military housing delivery system. Housing development, maintenance and operations would be executed through local contracts with private industry.

The Task Force envisioned that this Authority would be run by a small Board of Directors (Secretary of Defense, Service Secretaries, civilian experts, etc.). There would also be a Board of Advisors which would consist of representatives from DoD and private industry; a head office to run day-to-day operations; and regional management centers to award and oversee local contracts. (The Marsh Report, 1995)

## **C. THE ROAD TO MILITARY HOUSING PRIVATIZATION**

### **1. Past Military Housing/Private Sector Initiatives**

The idea of partnering with private builders to build or revitalize military housing is, not new. Congress and DoD had tried three times in the past to solve problems with the military family housing. These three instances shall be discussed below.

**Wherry Housing.** In 1949, Congress passed P.L. 81-221 (a bill sponsored by Senator Wherry of Nebraska) to authorize private enterprises to build housing on federal land without use of appropriated military construction funding, and renting the housing to military personnel. Service members retained their housing allowances, and paid rent to the private housing manager. Reports that developers were pocketing “windfall” profits through building code violations and maintenance shortcuts resulted in Congressional oversight. The program was terminated in 1955, after building approximately 84,000 units. (Beard, 2003)

**Capehart Housing.** In an attempt to fix the Wherry housing program, Congress authorized a new housing initiative in 1955 called Capehart, named after Senator Capehart of Indiana. Like the Wherry housing project, Capehart housing was built on federally controlled land, using private funds. Unlike Wherry housing, where title to the resulting property remained with the private developers, DoD actually owned those

housing units and assumed the mortgage obligation, using housing allowances from the residing military personnel. The Capehart program, however, met the same fate as the Wherry project. Disputes with contractors and ballooning costs forced the Kennedy Administration to retire the Capehart program in 1962, after adding another 115,000 units to the DoD housing inventory. (Beard, 2003)

**Section 801 and 802 Housing.** Amidst the Reagan military buildup, Congress once again attempted to fix military housing with the Military Construction Authorization Act for Fiscal Year 1984 (P.L. 98-115). The initiative encouraged private home builders to construct additional housing units on or near military installation for the service components to lease. Section 801 was basically a build to lease program, where the military contracted with a private homebuilder to construct a new housing project and then leased those units. Section 802 provided for a minimal occupancy rate or rental income for the housing project. However, by 1993, property tax disputes coupled with long delays caused the program to become unpopular with private developers which effectively ended its use. (Beard, 2003)

## **2. The Military Housing Privatization Initiative**

Since the Wherry and Capehart programs and use of Section 801/802 had obviously failed to alleviate the housing problem, Congress tried something very different. The National Defense Authorization Act for Fiscal Year 1996 (P.L. 104-106) created the Military Housing Privatization Initiative (MHPI) as a five-year pilot program within a 10-year plan along with a funding threshold of \$850 million to fulfill the goals outlined by the Marsh Task Force on Quality of Life (Reference). The Authorization Act permitted DoD to entice private investment by acting more like a private enterprise. Just as businesses can be creative and take full advantage of local real estate market conditions in designing development projects, the MHPI was intended to give similar flexibility to the DoD. (Else, 2001)

## **3. The Twelve Alternative Authorizations, or the MHPI “Toolbox”**

The MHPI includes twelve separate authorities that contain some of the provisions in earlier construction programs and adds to them, while permitting their

selective use where they can be most advantageous. These “alternative authorizations” include:

- **Conveyance of real property:** The Government may transfer title of Federal property to private ownership.
- **Relaxation of Federal specifications for housing construction:** Builders are allowed to construct housing in accordance with local building codes.
- **Inclusion of ancillary support facilities:** Bids for contracts may incorporate additional amenities, such as child care centers and dining facilities, to enhance the attractiveness of the basic housing.
- **Payment of rent by allotment:** Landlords make payment of rents through automatic electronic fund transfer from the appropriate Federal disbursing facility, guaranteeing cash flow.
- **Loan guarantee:** The Government may guarantee up to 80% of the private sector loans arranged by the property developer.
- **Direct loan:** The Government may make a loan directly to a contractor.
- **Differential Lease Payment (DLP):** The Government may agree to pay a differential between the BAH paid to Service members and local market rents.
- **Investment (Joint Venture):** The Government may take an equity stake in a housing construction enterprise.
- **Interim leases:** The Government may lease private housing units while awaiting the completion of a project.
- **Assignment of Service members:** Service personnel may be assigned to housing in particular project that they may otherwise not choose to occupy (tenant guarantee).
- **Build to lease:** The Government may contract for the private construction of a housing project, then lease its units (similar to the Section 801 program).
- **Rental guarantee:** The Government may guarantee a minimal occupancy rate or rental income for a housing project (similar to the Section 802 program). (Legislative Reference)

#### **4. The MHPI Process**

Central features of the new housing initiative are flexibility and decentralized execution. Most new MHPI projects follow this general pattern. First, the appropriate Service conducts a study to determine whether additional housing is needed, either

through the renovation of existing housing or construction of new dwellings. This study includes an evaluation of the local private housing market and a cost/benefit analysis comparing the use of an MHPI option and the traditional military construction route. The results are briefed to the Office of the Secretary of Defense (OSD) Competitive Sourcing and Privatization office. If the concept is judged adequate, it is approved and the Service is authorized to develop an appropriate solicitation proposal. Congress is notified before the completed solicitation is issued to private industry and again when the successful solicitation response is selected and before a contract is awarded. (Else, 2001)

## **5. The MHPI Implementation**

In the beginning, the MHPI was centrally run by OSD Office of Competitive Sourcing and Privatization. DoD contracting personnel were not familiar with the complexity inherent in this new approach to military housing construction: unfamiliarity with these different kinds of negotiations, plus the new legal, financial, and budget issues that appeared as the program got underway. Therefore, progress in negotiation of contracts and beginning construction was notably slower than originally envisioned. For example, the first project award, known as NAS Corpus Christi/Kingsville-I (Texas) for 404 units took place in July 1996. The second, named Everett-I (Washington) and encompassing 185 housing units, was awarded in March of 1997. In August 1998, another project was awarded at Lackland Air Force Base, Texas for 420 units. (Else, 2001)

This slow progress led to a 1997 decision by DoD to extend its original housing privatization target date of 2006 by four years to 2010. In addition, a 1998 GAO report faulted the costs analysis methodology used by DoD, indicating that actual savings would be considerably less than the Services claimed, and suggested that more effective use could be made of existing private market housing near military installations. (Else, 2001)

In October of 1998, Defense Secretary William S. Cohen delegated operational responsibility of MHPI to the individual Services, with oversight and final approval authority vested in the Housing Revitalization Support Office (HRSO), under the OSD Office of Competitive Sourcing and Privatization. In 2000, another project, Fort Carson, Colorado, for 2663 units, was finalized. (Else, 2001)

As the MHPI expiration date approached (2001), Congress became concerned and extended the MHPI until 31 December 2004 with the Military Construction Appropriations Act for Fiscal Year 2001 (P.L. 106-246). Subsequently the National Defense Authorization Act of 2002 (P.L. 107-107) extended the MHPI's term for another eight years, to 31 December 2012, allowing more time for DoD to complete its MFH privatization program. (Beard, 2003)

#### **D. OVERVIEW OF THREE DEPARTMENTS' MHPI IMPLEMENTATION**

##### **1. Three Ways of Executing the MHPI**

###### ***a. Navy/Marine Corps***

After a couple of years of initial close control of the privatization process, OSD later let the services run the program as they saw fit. The Navy and the Marine Corps, whose privatization endeavor is the focus of this paper, viewed privatization not only as a way to improve housing, but also as an investment opportunity. Through a program called Public Private Ventures (PPV), both the services teamed up with private industry to form limited liability companies to speed up military housing construction. The arrangement required the services to contribute equity up front, but also gave them the benefits of receiving revenues generated by the joint ventures. The next chapter will discuss the PPV in more details.

###### ***b. Army***

The Army embarked on a different approach. It is pursuing a "whole base" concept. Through its housing privatization program called Residential Communities Initiative (RCI), the Army entered deals with private developers under a process named Request for Qualifications (RFQ). Under the RFQ process, builders submit proposals for new housing developments and the RCI office awards the contract to the builder they think is best qualified. For example, the Army picked Lend Lease Actus of Napa, California to revitalize nearly 6000 housing units at Fort Hood, Texas. The developer hired the architect who had designed the athletes' village for the 2000 Olympic game in Sydney, Australia to design Fort Hood's new communities, complete with town centers, landscaping and drainage basins that double as ponds and streams. Under the deal, the Army guarantees Lend Lease Actus about \$4 billion in housing

allowances over the next 50 years to own and operate all base housing. In turn Lend Lease Actus will leverage those dollars for upfront loans to renovate and replace nearly 5,000 units in the first 5 years of the contract and the rest by 2010. Additionally, the developer will set aside some of the money for routine maintenance. When the contract expires, the housing units become Army property. (Cahlink, 2001)

*c. Air Force*

The Air Force meanwhile favored an approach opposite to that of the Army. It focused on small developments that were to be built on military land off-base (away from the operational areas) and could be sold if service members no longer needed the housing or bases were to be closed due to Base Realignment and Closure. Many of the Air Force housing privatization ventures are expected to follow the model developed at Lackland Air Force Base (AFB) in San Antonio, Texas where contractors were solicited to build housing through traditional requests for proposals that were judged on both cost and design. At Lackland AFB the Air Force selected a developer based in Austin, Texas named Landmark Organization to build 321 new housing units that made up Tejada Estates—and to operate and maintain them for the next 50 years. The deal also required Landmark Organization to provide repairs and renovations for hundreds of other units over five decades. In return, Landmark would receive the housing allowances of the service members living in those units and a lease for the land on which to build the units. Furthermore, under the deal at Lackland the Air Force invested \$6 million, compared to \$48 million by Landmark and the Air Force will take over the ownership of those units when the contract expires. (Cahlink, 2001)

**2. The Current Military Housing Status**

By 31 December 2003, 27 contracts for over 55,000 family housing units had been awarded with an estimated value of \$5.9 billion in total development costs. The private sector will assume 90 percent of the total costs with funding through loans, equity and/or projected operating income from the project. The Services will fund the remaining \$624 million in development costs through equity investment or direct government loan. Listed below are the 27 privatized housing projects that have been awarded:

- NAS Corpus Christi (Kingsville I), Kingsville, TX
- NS Everett I, Everett, WA
- Lackland AFB, San Antonio, TX
- Fort Carson, Colorado Springs, CO
- Dyess AFB, Abilene, TX
- Robins AFB, Warner Robins, GA
- MCB Camp Pendleton , CA
- NAS Kingsville II (Hunters Cove), Kingsville, TX
- NS Everett II, Everett, WA
- San Diego Naval Complex (Phase II), CA
- Patrick AFB, FL
- Fort Bragg, NC
- Presidio of Monterey/Naval Postgraduate School, CA
- MCB Camp Pendleton 2/MCB Quantico (CA & VA)
- Fort Hood, TX
- Elmendorf AFB, AK
- San Diego Naval Complex (Phase I), CA
- New Orleans Naval Complex, LA
- South Texas, TX
- Fort Lewis, WA
- Fort Meade, MD
- Wright-Patterson AFB, OH
- Kirtland AFB, NM
- Tri-Command Military Housing (Beaufort, Parris Island, SC)
- Fort Campbell, KY
- Fort Belvoir, VA
- Fort Stewart/Hunter Army Airfield, GA



Below is detailed information about results to date for each Service's privatization participation:

<b>All Services: Privatized Units, Newly Constructed and/or Renovated to Date</b>							
<b>Service</b>	<b>Total Privatized units</b>	<b>Total new units to be constructed</b>	<b>Total newly constructed units completed</b>	<b>% New construction units completed</b>	<b>Total units to be renovated</b>	<b>Total units renovation completed</b>	<b>% Renovation units completed</b>
Army	33,542	15,166	1,700	11%	12,293	2,524	21%
Air Force	5,486	3,820	1,661	43%	728	517	71%
Navy/Marines	16,068	6,922	2,133	31%	6,181	320	5%
<b>Total</b>	<b>55,096</b>	<b>25,908</b>	<b>5,494</b>	<b>21%</b>	<b>19,202</b>	<b>3,361</b>	<b>18%</b>

Table 1. Newly Constructed and Renovated Units

At the start of the program, OSD identified approximately 180,000 housing units as being inadequate and established a goal of planning for their elimination by 2007. To date, over 40,000 of those inadequate units have been placed under contracts to be replaced or renovated. Based on the current pace, OSD is expected to increase that figure to over 100,000 units. Table 2 shows the progress that the MHPI has had in eliminating the inadequate housing units: (December 2003 OSD PEP Report)

<b>Inadequate Housing Elimination Progress</b>			
	<b>Service</b>	<b>Planned</b>	<b>Actual</b>
FY 2002	Army	15,727	15,727
	Navy/MC	6,583	6,583
	Air Force	3,856	3,856
	<b>Total</b>	<b>26,166</b>	<b>26,166</b>
FY 2003	Army	23,533	23,533
	Navy/MC	11,613	11,613
	Air Force	4,938	4,938
	<b>Total</b>	<b>40,084</b>	<b>40,084</b>
FY 2004	Army	52,531	TBD
	Navy/MC	34,601	TBD
	Air Force	17,443	TBD
	<b>Total</b>	<b>104,575</b>	<b>TBD</b>

Table 2. Planned vs. Actual Inadequate Housing Units Eliminated

## E. CHAPTER SUMMARY

While MHPI has not moved forward as rapidly as anticipated, it has significantly lessened the DoD's chronic problem of inadequate housing. The MHPI also has done better than previous privatization attempts (e.g., Wherry, Capehart, and Section 801 and 802) since the designers of the initiative have incorporated many lessons learned from those attempts in the 12 Authorizations "Tool Box". Furthermore, the MHPI allows the Services to execute their programs as they see fit and that may contribute to future success. In the next chapter, we will discuss details of the Navy's Public-Private Venture, the main topic of this report.

### III. CURRENT DEPARTMENT OF THE NAVY MILITARY FAMILY HOUSING PRACTICES

#### A. INTRODUCTION

The Naval Facilities Engineering Command (NAVFAC), Special Venture Acquisition Program, under the direction of a senior executive service level director, is applying the legislative authorities enacted by the 1996 Defense Authorization Act. Figure 2 depicts a chart of the Special Venture Acquisition (SVA) organization.

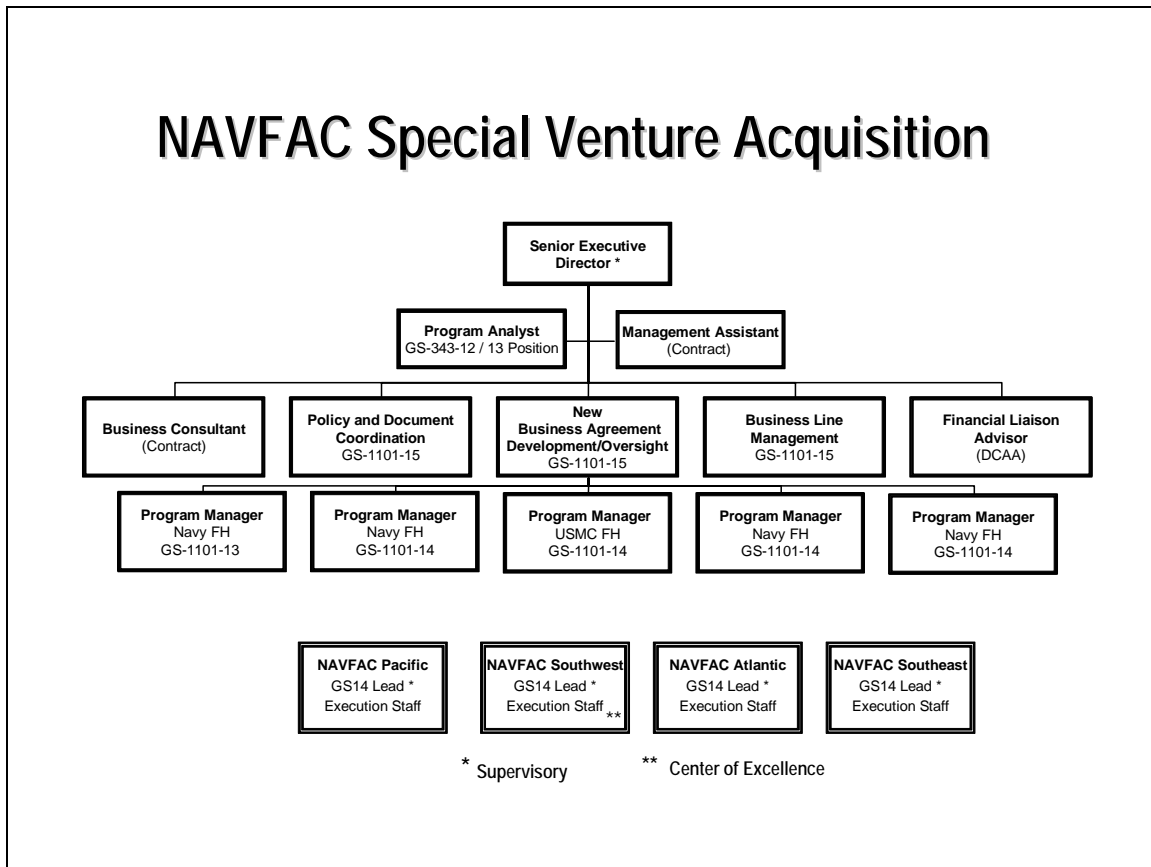


Figure 2. NAVFAC Special Venture Acquisition [From NAVFAC SVA]

The SVA division is responsible for conducting financial analysis, establishing long-term limited partnerships with private corporations, and explaining program complexities to various organizations such as Congress and the Government

Accountability Office. The Navy is implementing a major change in how the government has traditionally conducted new construction acquisitions of family housing.

The remainder of this chapter will elaborate on the Navy's use of the legislative authorities, specifically Section 2875, Investments (Joint Venture), originally authorized by the 1996 Defense Authorization Act. (See Appendix A. for a copy of "10 USC Chapter 169 - Military Construction and Military Family Housing" listing all of the alternate authorities granted by Congress.) It will also explore the Navy's use of joint ventures in the form of Limited Liability Companies (LLC) to solve its housing dilemma. The following areas will be addressed: Commander Naval Installations relationship with NAVFAC SVA, outside consultant support, audit agency review, life cycle cost comparisons, leveraging of funds, business model description, and the flow of funds.

## **B. COMMANDER NAVAL INSTALLATIONS RELATIONSHIP**

Commander, Naval Installations (CNI) organization was established as a formal command on October 1, 2003 and is responsible for Navy-wide installation management. Its mission is "to provide consistent, effective, and efficient shore installation services and support to sustain and improve current and future Fleet readiness..." (CNI, 2003)

One of the immediate benefits of standing up CNI was reducing the number of organizations responsible for planning, programming, budgeting, and executing resources from eight to one. Sixteen regional commands report to CNI. (See Appendix B. for command locations.) CNI regions are listed below and segregated by commands located in the continental United States (CONUS) and outside the continental United States (OCONUS):

## **CONUS**

Navy Region Northwest  
Navy Region North Central  
Navy Region Midwest  
Navy Region Northeast  
Navy Region Southwest  
Navy Region South  
Navy Region Gulf Coast  
Navy Region Southwest  
Navy Region Mid-Atlantic  
Naval District Washington

## **OCONUS**

Navy Region Hawaii  
Southwest Asia  
Singapore  
Japan  
Guam  
Europe

CNI is essentially the landlord of the Navy. The CNI core staff consists of less than 200 personnel and is relatively small compared to the responsibilities assigned to it. (See Appendix C. for command organization chart.) They soon recognized staffing shortfalls and have sought to develop strategic partnerships with organizations possessing the requisite technical knowledge and experience. Strategic partners include the Naval Supply Systems Command (NAVSUP) for logistics support and the Naval Facilities Engineering Command (NAVFAC) for contract specialist support. (CNI, 2003)

Through these relationships, CNI is free to determine the needs of each installation and translate those needs into requirements and specifications. NAVFAC's Special Venture Acquisition (SVA) program is assisting CNI in implementing initiatives and partnership arrangements to meet Navy-wide housing installation requirements in accordance with CNI's requirements and specifications.

### **C. CONSULTANT SUPPORT**

The SVA also realized that they needed to obtain the assistance of experts in establishing partnerships and navigating the legal pitfalls associated with contractual arrangements. Due to the difficulty in identifying and evaluating prospective partner companies and the complexities associated with establishing partnerships, the SVA hired consulting services from Basile Bauman Prost & Associates, Inc (BBP).

BBP describes itself as assisting in all aspects of the Navy's Public/Private Venture (PPV) program, currently assisting in 17 privatized housing programs. BBP offers assistance using a two-tiered effort. Consultants provide program level assistance at Naval Facilities headquarters and project level assistance in the field using a specialized team to assist individual installation PPV efforts. (Basile Bauman Prost & Associates, 2004)

BBP Associates promotes their company as "an economics and real estate development advisory firm which counsels an array of public and institutional clients, as well as both novice and sophisticated private investors, interested in bringing projects to fruition." They also list expertise in the following areas:

- market and financial feasibility assessments
- developer solicitations and evaluations
- implementation and packaging assistance
- deal structuring and negotiations
- strategic planning and economic development analyses
- resolution of public revenue shortfalls
- military and federal property disposition
- transportation/joint development planning
- managing development organizations and projects
- special expertise and services

BBP Associates has a broad spectrum of clientele including: all the armed services; cities and counties such as Boulder Colorado and Phoenix Arizona; state and local governments such as the California Transportation Commission and State of Florida; college and universities such as Johns Hopkins and MIT; and private developers such as Ford Motor Land Development Company and the Marriott Corporation.

#### **D. AUDIT AGENCY REVIEW**

BBP Associates has provided the SVA division innovative and progressive guidance through some rather complex financial analysis and legal structure development in the form of limited partnership arrangements. The SVA has also developed relationships with another agency to analyze the results of these arrangements.

The Director of Acquisitions for Naval Facilities Headquarters (NAVFAC HQ) signed a memorandum of understanding (MOU) with the Assistant Director, Operations Headquarters, Defense Contract Audit Agency (DCAA) in April 2004. This agreement formalized the services that the DCAA is currently providing the SVA in helping to evaluate the effectiveness/appropriateness of NAVFAC's privatization efforts at no charge. DCAA is a separately funded federal agency. Some of the key services include: serving as the DCAA focal point to NAVFAC relative to the housing privatization efforts.

- performing financial capability assessments.
- participating in pre-award financial evaluations.
- analyzing proposed annual operating budgets to assist contract officers in determining reasonableness and compliance with business agreements.
- evaluating the system of internal controls related to escrow accounts and performing cash flow analysis. Assisting in obtaining audit services for necessary reviews.
- assisting in developing a system of internal controls to support the DON policy, procedures, and guideline objectives for business and property management.
- analyzing management and financial reports and report findings/recommendations to assist in NAVFAC's financial and management performance of the program.
- performing risk assessment for changes to the operating agreements, purchase and/or disposition of assets, changes to the composition of the members or partners, etc., to identify any increase in risk to the Government.

Another key component of this MOU is the assignment of a full-time Financial Liaison Advisor (FLA) from the DCAA to the SVA organization. This individual is also listed in the "NAVFAC Special Venture Acquisition" organization chart, Figure 2. The terms of this agreement require a review of the document at least once every three years. Additionally, the agreement is subject to termination by either party with a 120-day notice. (DCAA, 2004)

## **E. LIFE CYCLE COST COMPARISONS**

In compliance with a recommendation made by the Government Accountability Office (GAO), a life-cycle comparison between military construction (MILCON) costs and Military Housing Privatization initiative (MHPI) project costs has been implemented into the project approval process. These cost comparisons must be based on projects of identical scope, quality, amenities, and duration. A memo signed out on November 12, 2003 by the Director, Housing and Competitive Sourcing, details the guidance issued to the Services in determining life-cycle costs. (Sikes, 2003)

The memo identified some underlying assumptions in conducting these comparisons. These are:

- constant (real) dollar analysis – used to measure costs in units of stable purchasing power.
- discount rate – required by OMB Circular A-94 using the Treasury Department cost of borrowing funds.
- inflation – nominal or inflated dollars should not be used.
- base year of analysis – should be the first year in which there would be a difference in expenditures between the two alternatives, generally the first year of the project.
- period of analysis – must be identical to comparative alternatives. Where alternatives have different economic lives, the longest is used as the basis for the comparison and an adjustment is made for the unequal life by computing the costs of extending the alternative with the shorter life.
- initiative to increase housing allowances – must reflect proposed increases in basic allowance for housing and the Service's recoupment of the increase in allowances due to the budget increase to achieve zero out-of-pocket as return to the government.

Sunk costs, including government-owned land and improvements are not included in this comparison.

Some of the key cost considerations for MILCON are construction costs, renovation, demolition, design, out-year revitalization, school impact aid, and operations and maintenance using market data from the Institute of Real Estate Management (IREM).



Alternatively, some of the key cost considerations for privatization are: project planning (including consultant costs), construction inspection, basic allowance for housing, portfolio management, school impact aid, housing management personnel, and credit scored amount.

Congressional “scoring” is a fundamental part of determining the government’s upfront obligation to a housing privatization project. This is how the Federal Government budgets for the cost of governmental activities such as military family housing. It is the percentage of dollar value, from 0% to 100%, of a project’s cost that must be allocated to an agency’s budget in a given fiscal year. (DoD MHP, 2004) Office of Management and Budget (OMB) scoring guidelines require fully funding a project with sufficient budget authority in its first year to cover the Government’s long-term financial commitment to the project.

The graphic depicted in Figure 3 is an example of how the government would score a privatization project for four of the legislative authorities granted by the 1996 Defense Authorization Act. (See Appendix A. for a complete listing of the legislative authorities.)

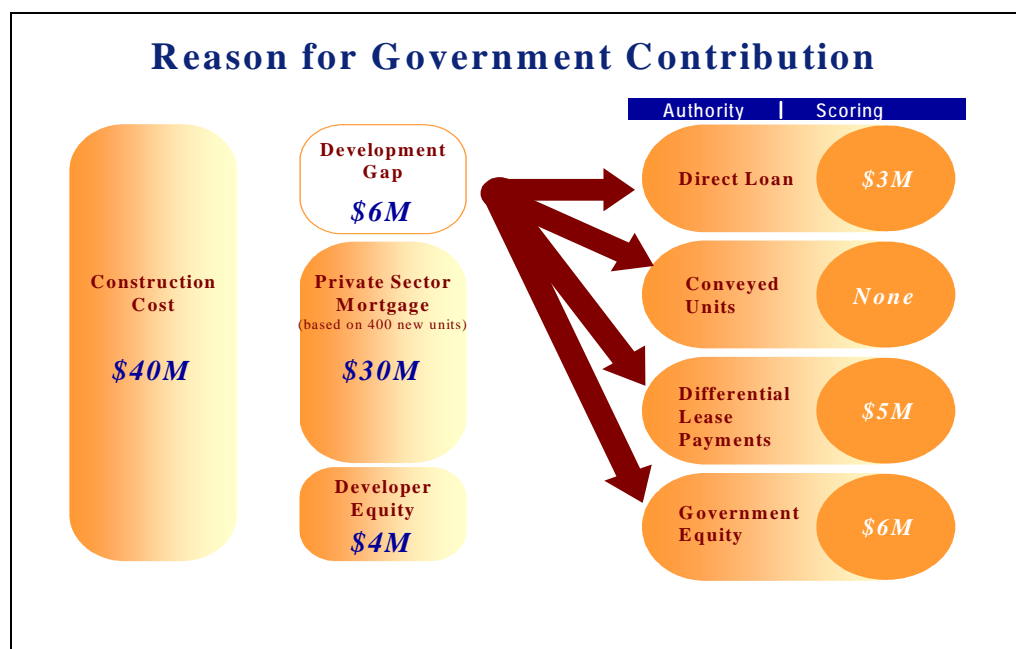


Figure 3. Reason for Government Contribution [From Office of the Deputy Under Secretary of Defense (Installations) Housing and Competitive Sourcing]

The “Reason for Government Contribution” example lists estimated construction costs of \$40 million. As a result of the limited partnership between the Navy and a private entity, \$34 million (\$30 million plus \$4 million) of private industry funds are obtained to finance a military family housing project. The remaining funds, termed “Development Gap” are obtained from funds allocated to the Department of the Navy and also make up the congressionally “scored” amount for this project. The amount of scored funds in this example is \$6 million, representing 15 percent of total funding authority for the project’s first year. This amount is also listed next to the “Government Equity” caption under the “Scoring” column of Figure 3.

#### **F. LEVERAGING OF FUNDS**

Military Construction (MILCON), requires fully funding the cost of military housing by Congress in a given fiscal year. (10 USC Sec. 2807) In contrast, privatization using joint ventures allows leveraging Federal funds by accessing outside industry funding for housing construction and renovation costs. Leveraging of Federal Government funds may be one of the most important benefits of the Navy’s and the Department of Defense’s privatization program.

Financial leveraging is defined as “an increase in the rate of return larger than the increase in explicit financing costs—the increased rate of return on owner’s equity when an investment earns a return larger than the after-tax interest rate paid for debt financing.” (Stickney and Weil, 2003) This concept is allowing the government to eliminate inadequate housing in an unprecedented scale. (DoD MHP, 2004) Department of Defense policy requires a minimum leverage of three to one for a privatization project to be considered acceptable. This means a privatized project must generate at least \$3 of housing development for every \$1 appropriated by Congress. (PEP, 2003)

The leverage ratio for individual projects is calculated by dividing the estimated costs for a project under MILCON by the project’s total budget score. The amount of leverage achieved on a given project is a function of several factors, such as project size, location, and deal structure.

Figure 4 shows the amount of all homes produced by the Navy with private companies since 1996 and the corresponding leverage achieved.

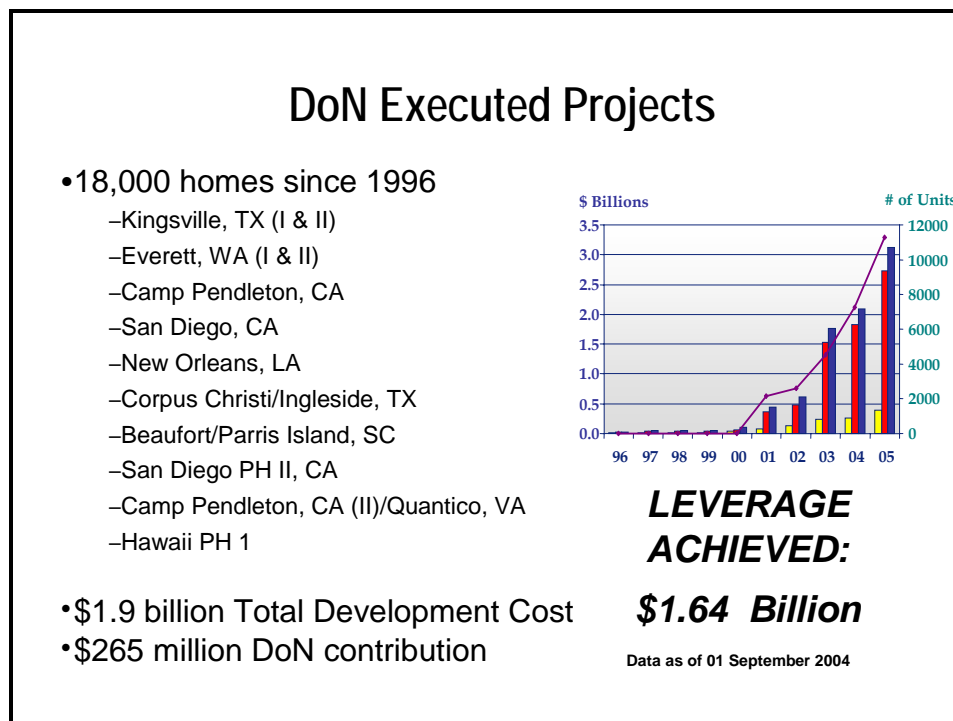


Figure 4. DoN Executed Projects [From NAVFAC SVA]

This figure illustrates that for every dollar the Department of the Navy (DoN) invested in a project they received over seven dollars in housing development ( $\$1.9\text{B} \div \$265\text{M} = 7.17$ ).

The leveraged funds are obtained through a partnership formed between the government and the private company. This partnership is intended to minimize the government's financial risk. Essentially, the government and the partner contribute an amount of funds to the partnership. It is then up to the private partner to obtain the remaining construction financing. This financing is obtained from various reputable sources such as banks, venture firms, and bond issues.

#### G. BUSINESS MODEL DESCRIPTION

The Department of the Navy (DoN) uses a joint venture concept, which establishes a Limited Liability Company (LLC) with a non-governmental partner(s). These partnerships last as much as 50 years, with DoN holding a minority interest in the

partnerships. Minority membership allows the Navy to have a voice in the key decisions, without having to manage day-to-day operations. Some of the key decisions are admission of additional members, refinancing or taking out additional debt, disposition of company assets, changes in the distribution of cash flow, replacement of the property manager, and changes in project ownership.

Construction efforts are no longer constrained by government competitive bidding rules and regulations. Additionally, there are a number of economic advantages to seeking outside industry involvement in revitalizing military family housing. These are using private sector capital as a financial leveraging tool, incorporating the latest industry construction standards into the development, and implementing business management best-practices in the delivery of homes to all military families.

A partnership also offers advantages to a private partner. The company can look forward to receiving rent in the form of basic housing allowances from military tenants. This income is not guaranteed, but the partner is allowed to fill vacant units with local residents. The Navy is generally allowed a 30-day preferential referral period before the unit is made available to the general public. Additionally, the property will operate like a private rental property with tenants signing leases, paying for their own utilities, and subject to federal/state/local landlord-tenant laws based on the local jurisdiction.

The following graphic depicted in Figure 5 details a brief overview of the LLC business model unique to DoN and the participating private industry partner(s):

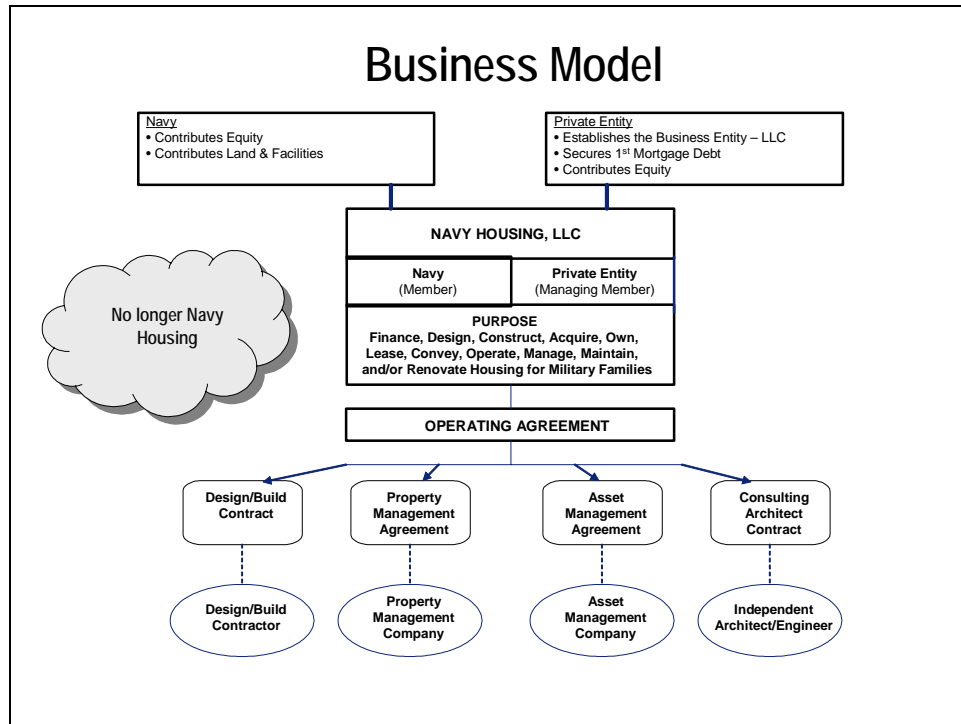


Figure 5. Business Model [From NAVFAC SVA]

The Navy and the private entity both contribute equity. Once the partnership is formalized, the Navy becomes a minority partner and leaves the day-to-day operations to the discretion of the private partner. The private partner can either perform these functions in-house or subcontract out responsibilities such as design, construction, renovations, property management, etc. in the form of operating agreements. Additionally, the private partner will also obtain the financing needed to fund the remainder of the project.

The “No longer Navy Housing” caption in the figure listed above refers to the properties being managed very much like commercial properties. As previously mentioned, tenants are required to sign leases, pay their own utilities, and are subject to tenant-landlord laws and regulations. Figure 6 describes the transition of responsibilities in more detail:

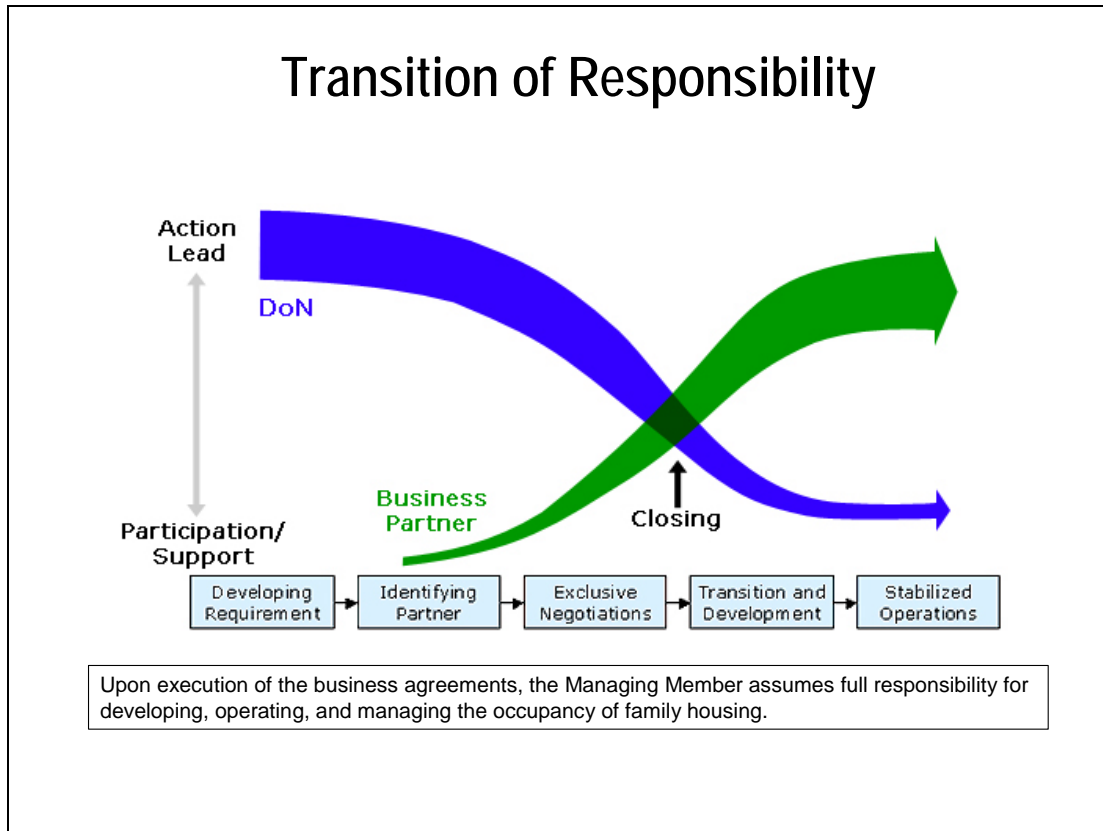


Figure 6. Transition of Responsibility [From NAVFAC SVA]

This graphic details the sequence of events leading up to the partner assuming a majority role in the partnership. Initially, the Navy needs to articulate a requirement to private industry and potential partners. Once a partner is identified, the next step is to legalize the partnership. Eventually, the partnership will be formed and operations will begin to stabilize. There will be a point in the partnership when all construction requirements have been met and the private partner will have assumed the lead in managing daily operations. Table 3 lists the partnerships that have been formed at various sites throughout DoD.

Project	Privatization Company	Property Management Company
<b>Kingsville I</b>	Landmark Organization, LP	Faulkner USA
<b>Kingsville II</b>	Hunt Building Corp.	HBC Property Managers
<b>Everett I</b>	Arlington Housing, LLC	Dujardin Property Management Co.
<b>Everett II</b>	Gateway Everett, LLC	Pinnacle Realty Management
<b>New Orleans</b>	New Orleans Navy Housing, LLC	Patrician Development LLC
<b>San Diego I/II</b>	Lincoln/Clark San Diego LLC	Lincoln BP Management, Inc.
<b>South Texas</b>	South Texas Navy Housing, LLC	Capstone Real Estate
<b>Beaufort</b>	Tri-Command Military Housing LLC	Tri-Command Property Management LLC
<b>Pendleton I</b>	De Luz Housing, LLC	Hunt Building Corporation
<b>Pendleton 2</b>	Camp Pendleton & Quantico Housing, LLC	Lincoln BP Management, Inc.

Table 3. DoN Partners

## H. FLOW OF FUNDS

The Department of the Navy has a firmly established method for allocating the flow of funds generated by the rental income earned from military families. The term used by the SVA to describe this funding allocation is a “Cascade of LLC (Limited Liability Company) Funds.” Figure 7 lists an overview of the fund flow process.

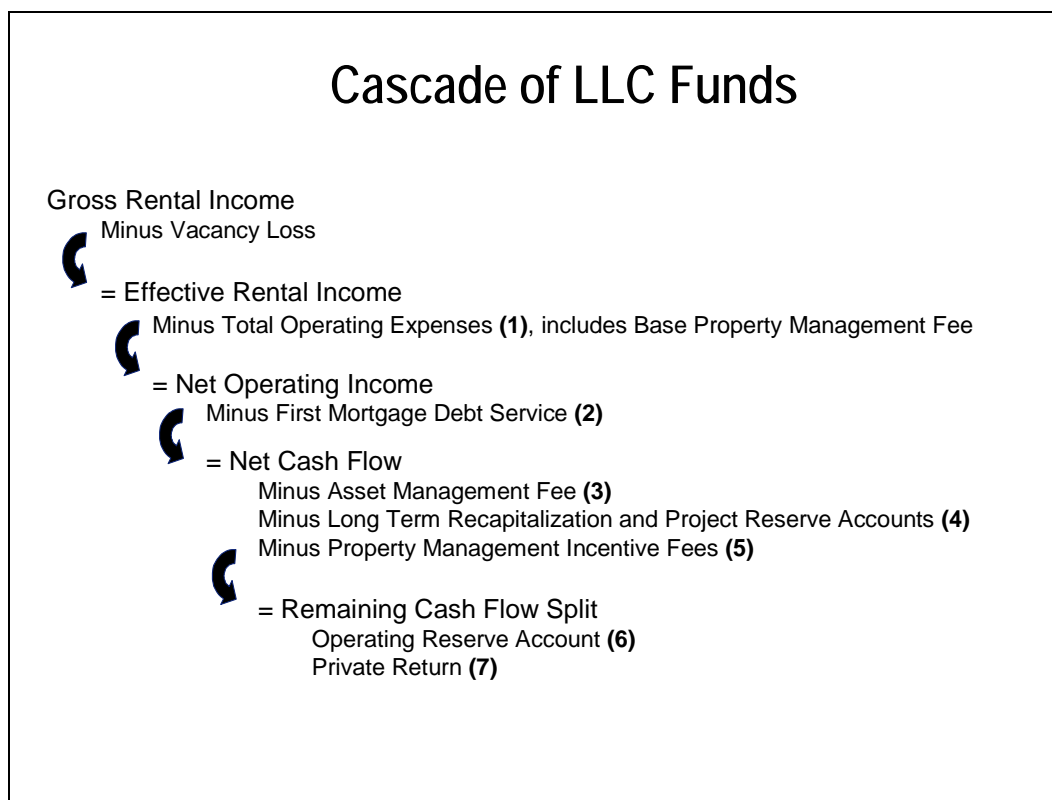


Figure 7. Cascade of LLC Funds [From NAVFAC SVA]

Fund allocation percentages are not included in the figure listed above due to the business sensitive nature of the information and the possibility for fund fluctuations specific to each negotiated partnership. The following numbered paragraphs correspond to the numbers listed in the “Cascade of LLC Funds” figure and will cover each allocation in more detail.

(1) Total operating expenses include maintenance, support services, personnel, administration, property taxes, and insurance. The asset manager is responsible for preparing the budget, which is then submitted for the Navy’s approval annually.

(2) After operating expenses are met, the next funding allocation goes to servicing mortgage debt. This is the debt incurred by the partner through loans, bond issues, venture capital investors, etc.

(3) The net cash flow is then distributed to the asset manager. The asset manager is responsible for the overall performance of the company and ensuring the company satisfies obligations over the long term. Obligations include conformance with loan documents, compilation of budgets, protection of asset value, contracting on behalf of the partnership, and negotiating with municipalities. This fee for service structure provides a financial incentive for the asset manager to maximize the efficient operation of the company, which in turn will help maximize total income for the company.

(4) Long Term Recapitalization Funds Accounts (LTRA) were established to maintain quality homes/neighborhoods over time and establish a Project Reserve Account (PRA) to enable the partnership to address any deficits in Family Housing. Fund withdrawals are subject to Navy approval.

(5) Property Management Incentive Fees are based on performance indicators. Some of these indicators are independent resident satisfaction surveys, dwelling make ready (turnaround) efficiency, response time to service requests, and semi-annual inspections conducted by a Navy member representative, property manager representative, and an independent inspector.



(6) The Operating Reserve Account was created as a guard against unforeseen negative financial impacts due to such things as utility spikes, emergency repairs and maintenance, and additional amenities. Fund disbursement requires Navy approval.

(7) Private Return is the last money out of the project and is not guaranteed. The funds, if any, are split between the Navy's Operating Reserve Account and partners Private Return. It is essentially the private sector's return on equity.

## **I. CHAPTER SUMMARY**

The DoN was the first to use the limited liability partnership concept of conducting business with positive results. Commander Naval Installations and Naval Facilities Headquarters have formed a strategic partnership with the goal of privatizing over 86 percent of Navy family housing by 2008. Currently, they have privatized over 18,000 units out of a total of 70,000 of the Department of the Navy's housing inventory.

Due to the complexities inherent in forming partnerships with private industry, the Navy has obtained the consulting services of Basile Bauman Prost & Associates, Inc. an expert in this particular field. The consulting services have allowed the Navy to successfully privatize multiple projects in disparate geographical locations dealing with a myriad of state and local regulations with swift progress. Additionally, Navy privatization efforts have won the accolades of Congress. Recently, the Navy obtained the services of the Defense Contract Audit Agency via a memorandum of understanding to help evaluate their privatization initiatives. This relationship will provide the added benefit of fine tuning consulting service support.

One of the key considerations in pursuing a privatization effort is determining the difference in life cycle costs between military construction (MILCON) costs and privatization costs. The Navy has shown a savings over MILCON and has also received favorable budget scoring (an example of scoring is given in Section E of this chapter) for only the equity portion of a limited liability partnership with a private entity. Additionally, partnership efforts have allowed the Navy to achieve an overall seven-to-one return for each dollar invested in housing construction by the Federal Government. (NAVFAC, 2004)

The limited liability corporation business model has revolutionized how the Navy conducts business with private industry. This arrangement offers economic, service, and construction quality benefits to both parties and requires a long term commitment. The flow of funds from rent obtained in the form of basic housing allowances is critical to the economic benefits. After all debts are satisfied, remaining funds can be shared by the partners. Funds returned to the U.S. Treasury might be reprogrammed back to the military family housing privatization initiative.

## **IV. TRANSACTION COSTS ECONOMICS (TCE)**

Since building and fixing the military housing costs are so high, outsourcing has been used and considered as a method to attain cost savings. However, there is no clear framework to help DoD managers to determine which functions, contracting tools or conditions make outsourcing a good option. Transaction Costs Economics (TCE) concepts with assets specificity could provide the tool to help managers better judge the outsourcing option. It seeks to explain why certain functions are better to compete in the market to achieve cost savings and efficiency and why other functions should be retained internally. Oliver Williamson, the founder of TCE said that TCE seeks “economizing transaction costs.” (Williamson, 1985) TCE with its characteristics of high specificity, low frequency, and increase uncertainty will required a completed contract with clear details to prevent opportunistic behavior. This chapter will describe the major concepts of TCE, how they affect outsourcing “make or buy” decisions. This will lead to the discussion of opportunistic behavior and contracting solutions.

### **A. DEFINITION OF TCE THEORY**

This chapter focuses on transaction cost economics when two or more parties agree to exchange or transfer goods or services. The transaction can be seen as a form of contract. The costs associated with that transaction include the costs of setting up the contract, and the costs of monitoring and enforcing the contract’s performance. Further transaction costs during the time contracts take place can be referred to as maladaptation costs. TCE is a very powerful theoretical framework that seeks to reduce maladaptation costs and focuses on organizational efficiency. William (1985) defined product costs as being analogous to the cost of building and running an “idea machine”, while transaction costs are those costs which are incurred by departures from perfection. Three attributes of transactions are asset specificity, frequency, and uncertainty.

## **B. MAKE OR BUY DECISION**

The “make or buy” decision is the major part of outsourcing. Transaction costs economics framework tries to determine whether it is efficient and economical for the firm to produce goods or services internally. A firm will choose to acquire goods or services from the market if they are less expensive and are in the same or better quality than what it can produce internally. In order to determine if outsourcing is a good decision, organizations must evaluate all relevant costs to see if goods or services can be provided by an outside firm at a lower cost and still keep the same or provide a better quality. If the quality of goods or services is less, then it is not a good reason to obtain them from an outside firm.

Contracting costs and monitoring costs should also be considered in the decision of outsourcing. In addition, intangible costs, internal costs, and external costs need to be included. Intangible costs are hard to defined costs which include the loss of control in the contract, loss of worker morale, and loss of flexibility. Internal costs exist regardless if an activity is performed internally or externally. An example of internal costs is contract administration costs which should be included when a function or a product is outsourced. The contract administration costs are often the costs to set up the contract or the disposal costs. Sometimes, an organization overlooks infrastructure cost when outsourcing. Although infrastructure costs often exist when the function is produced internally, but still exists when a function is produced externally. Outsourcing by implication participating in the free market can be cheaper due to competition. The more common an item or standard an operation function is, the more likely the cost will be cheaper in the market. The market not only can provide cost savings, it can provide better quality through competition. Whenever there are more suppliers, the customer power increases. Outsourcing in this situation is efficient. On the other hand, when the asset specificity is high, then opportunistic behavior will be more likely to happen. In these situations producing goods or services internally is a good option. It is better for the organization to retain the function that is more complex and requires specialized resources investment. Franck and Henderson noted a decline in the number of buyers and sellers also can lead to bargaining problems. (Vertical Coordination of Marketing

Systems) With specialized assets, the bargaining power in the market will decrease and the potential for opportunistic behavior will increase because the alternative exchanges cannot be switched to easily. For example, no organization would choose to produce their office supplies since these supplies are a lot cheaper in the market. There is a lot of competition in the market, the organization can get the supplies with higher quality and at a lower price than if it chooses to produce the supplies internally. Whenever there is less competition, high prices and greater contracting and monitoring cost will take place. If the transaction cost and monitor cost becomes too expensive, the firm should retain the functions.

### **C. VERTICAL INTEGRATION**

In order to reduce opportunistic behavior, firm should decide to produce in-house since opportunism can be more easily suppressed within the firm. (Stephen & Love 2000) Asset specificity has been seen as the driving force behind Vertical integration. Contractual incompleteness, and its interaction with different types of transactional attributes including asset specificity, complexity, and uncertainty, plays a major role in the relative costs of governance through outsourcing versus through internal organization. When transactions take places through market as a contract, the buyer and seller may have some conflicting interests. For example, in the situation where the buyer and seller are locked into a bilateral trading relationship, in the sense that the cost of continuing the bilateral trading relationship is higher than terminating it and choosing alternative buyers and sellers. In this situation either one or both parties may have the incentive to take advantage of their own interests. Vertical integration in this case has more potential advantages than outsourcing since the internal organization is likely to better harmonize these conflicting interests and provide smoother adaptation and operate more efficiently in coping with changing supply and demand conditions over time. As Williamson (1971 pp.116-117) noted:

... The contractual dilemma is this: On the one hand, it may be prohibitively costly, if not infeasible, to specify contractually the full range of contingencies and stipulate appropriate responses between stages. On the other hand, if the contract is seriously incomplete in these respects but, once the original negotiations are settled, the contracting parties are locked into a bilateral exchange, the divergent interests between the

parties will predictably lead to individually opportunistic behavior and joint losses. The advantages of integration thus are not that technological (flow process) economies are unavailable to non-integrated firms, but that integration harmonizes interests (or reconciles differences, often by fiat) and permits an efficient (adaptive, sequential) decision process to be utilized...

Vertical integration is favored when the benefits of mitigating opportunistic behavior problem by moving the transactions inside the firm. Vertical integration in this situation provides a reduction of transaction costs associated with relationship-specific transactions.

#### **D. RELATIONSHIP BETWEEN ASSET SPECIFICITY, TRANSACTION COSTS AND VERTICAL INTEGRATION**

Vertical integration is chosen to minimize transaction costs. For low specificity, ( $k < k_1$ ) transaction costs of the market are minimal. As asset specificity increases to intermediate levels ( $k_1 < k < k_2$ ) contracting is a good option since it minimizes transaction costs. For transactions with high levels of asset specificity ( $k > k_2$ ) vertical integration becomes favorable for its cost-minimizing (see graph below).

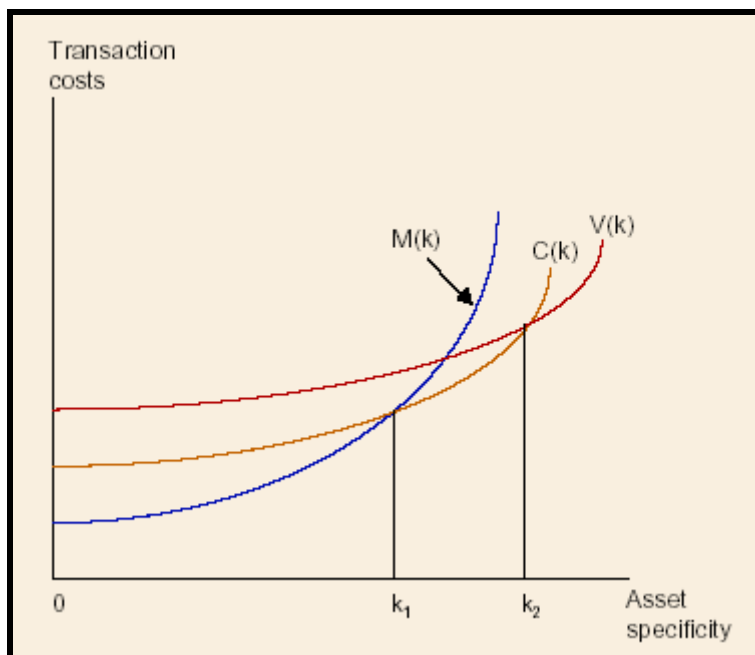


Figure 8. Relation Between Asset Specificity and Vertical Integration [From Williamson, 1991]

## **E. OUT SOURCING PROBLEMS**

Outsourcing has many problems, as the functions become more complex and require higher specificity as mentioned above, the more problems must be considered before determining if outsourcing is the best option for organization. The concept of opportunistic behavior and assets specificity in transactions cost economic will provide a better tool to improve outsourcing decisions.

### **1. Asset Specificity**

Asset specificity is defined as an investment in assets specifically relevant for a particular transaction. It can be in the form of physical assets related to locations or tangible assets that can not be easily duplicated. Asset specificity plays an important role in transaction costs economics because it creates market imperfections and allows assets owners to earn rents. Once an asset is tied to a specific service, then it is difficult to withdraw. Because relationship specific assets have much lower value in other uses by other users, they reduce the number of potential trading partners. (Williamson 1999). Thus, one party might exploit the other party's vulnerability. For example, an investment in an aircraft in DoD is very expensive to reverse. DoD will be locked into that commitment for a long time. Certainly, there will be a dependent situation, that gives them not much flexibility, and in some cases, inefficiency for the long-term. This problem can be referred to as opportunistic behavior. The more specificity an asset has to a transaction, the more likely a hold up may take place. William (1985) identified four types of asset-specificity, three of which are related to the physical assets of production, and the fourth to the specialized skills of the people involved in the work process.

- Physical asset specificity refers to an investment that is made in specialized equipment or tooling designed for a particular product or customer
- Site specificity: a buyer and a seller locate their facilities next to each other to reduce inventories or transportation costs. For example, a producer locates a farm operation close to a processor to reduce transportation costs.
- Dedicated asset specificity is an asset or piece of equipment that is required to manufacture a product for a particular buyer. For example a dedicated software that the supplier and buyer use to track their inventory and orders.

- Human asset specificity is the past investment that people made in education, skills, and experience, which they use in carrying out their work.

## **2. Frequency**

The effect of frequency on transaction cost is strong, especially when the specificity level is high. There will be fewer buyers and supplier in the market to exchange the service or product. Since the product is rare or unique, it costs more to make that product. Low frequency along with assets specificity will more likely create opportunistic behavior that is why frequency is very crucial in transaction costs economics. Given a choice, a firm would not want to produce or provide a good or services in house that is very rarely used. For example, most firms will not want to set up their own management consultant department because they only use the services of a management consultancy on a very infrequent basis.

## **3. Uncertainty**

When there are many relevant unknown factors in a transaction, it can be described as uncertainty. It is hard to see the things that might happen during the course of transaction. One obvious factor is the length of time during which transaction will occur. Transactions that happen in a short period time will have relatively little uncertainty. Transactions surround by little or no uncertainties require minimal governance because all the information about the transaction is available to all parties. By contrast, uncertainty in defining and observing performance makes it difficult to contract based on that performance.

## **F. OPPORTUNISTIC BEHAVIOR**

Opportunistic behavior refers to the possibility that people will act in a self interest way. People may not be entirely honest about their intention or they might attempt to take advantage of the unforeseen situation that gives them a chance to exploit the other party. Transaction cost depends on the transaction (According to Economics USDA). When transaction costs are high, there is the possibility of “opportunistic behavior”. Transactions can also be affected by uncertainty. Uncertainty can happen because of opportunistic behavior of the individuals or an uncertain environment. For



example, information may not be distributed equally. Where one party to a transaction has more or better information than the other, the possibility of opportunistic behavior may happen by itself. When products are not standard and require a specific investment, opportunistic behavior is likely to happen.

## **G. CONTRACTING**

A contract is used to reduce risk and facilitate the exchange of goods and services between partners. The exchange can involve performing work, or delivering goods or services in return for payment. If a contract is carefully constructed, it could provide some safeguards to protect the interests of both parties. Williamson defines contracting as planning, promises, competition, and governance. (Williamson, 1985) There are two types of contracting, implicit and explicit contracting. The implicit contracting relies on acceptance by the contracting parties of organizational norms and what is understood informally to be good and bad performance. If organizations operate in an environment in which partners trust each other, there will be less need for formal contracts. (Williamson, 1999) Implicit contracts can be used in this case. However, in order to enforce specific performance and reduce the opportunistic behavior problem, the contracting description must be sufficiently explicit. Williamson (1999) notes that one way to insure against opportunistic behavior is to write a detailed contingent contract that specifies all possible eventualities and is watertight against all forms of opportunism. (p. 300). In most contracting environments, there will more likely be both explicit and implicit contracting rather than the extremes of wholly implicit or explicit contracting.

## **H. TCE EXAMPLE**

A hypothetical example of TCE application in a business could be from a wine maker. Blue Sky Winery (BSW) is considering if it should continue to grow its own grapes or to buy grapes from grape growers. To buy the grapes could provide some cost savings. BSW believes that their farming operation is not economical and that it could buy grapes at a lower price. BSW entered into an agreement to buy grapes from Valley Grape Farm (VGF) who is one of the few wine grape growers in the region. BSW can purchase grapes from VGF for \$1,800 per ton while it cost BSW \$2,100 to produce a ton of grapes.

If there are a limited number of grape buyers and sellers in the region, if VGF and BSW do not have a well written contract they could develop opportunistic behavior. For example, VGF could increase the price for its grapes or does not produce enough to meet BSW's requirement. BSW could also develop opportunistic behavior by forcing VGF to sell the grape at a loss. Because of spoilage and transportation costs contribute to the site specific of the grape grower and buyer VGF and BSW could develop a bilateral contract which reduces competition. Both VGF and BSW need to consider the asset specificity issue. If VGF anticipates an increase in grape demand because of BSW and purchases additional grape farm equipment and plants additional grapes over other potential crops it has made investments in specific assets and physical plant in anticipation of BSW's intentions. BSW on the other hand may decide to divest of its grape growing assets including human assets in this area in anticipation that VGF can provide the required grape at a lower price. One can see that this arrangement has risks involved with it which may cause BSW or VGF to not want to enter.

## **I. SUMMARY OF THE FRAMEWORK OF TCE**

TCE is a good tool to help managers analyze efficient investing in transaction specific assets and reduce the potential for opportunistic behavior. With the understanding of TCE, the transaction costs can be reduced to some extent. However, bounded rationality which means that human's memories and ability to process information are limited, prevents contracts from specifying all possible contingencies and therefore the potential for opportunistic behavior cannot be completely eliminated. As contracts become flexible, they allow more potential for opportunistic behavior. Therefore, asset specificity and recognitions of opportunistic behavior would give managers a better tool to reduce the transaction costs in contracts. In short, firms should only internalize transactions that they can govern more effectively than through markets or contracts.

## **V. TRANSACTIONAL COST ANALYSIS OF THE PRIVATIZATION OF FAMILY HOUSING AT NAVAL COMPLEX SAN DIEGO, SAN DIEGO, CALIFORNIA**

This chapter will examine the contract, used by the Navy Region Southwest, using Transaction Cost Economics (TCE) Theory. It will focus on how the Navy Region Southwest's agreement applied lessons learned from the military housing Public Private Venture (PPV) done in Everett, Washington to avoid any opportunistic behavior. This section will also examine the agreement to learn how it affects the Department of the Navy with respect to using the PPV agreement as a template for other military housing privatization projects.

### **A. CHAPTER OVERVIEW**

As we have seen in the previous chapter, the elements that make up Transaction Costs Economics (TCE) can play a significant role in how the Department of Defense (DoD) would structure contracts for privatization of military housing. This chapter will build on those theories and explain how they have been applied to DoD military housing PPV. First, DoD would want to limit incentives for either party to act in an opportunistic way. Opportunistic behavior is a situation where one party takes advantage of a position which has risen as a result of an exchange. One way to avoid opportunistic behavior is to create a detailed contract or agreement that would contain all specific instances of opportunistic behavior which would be a very detailed. This, is inherently impossible; the problem is that the contract or agreement lacks all the details needed to avoid specificity or opportunism. (Rubin, 1990) For example, what compensation would or should the DoD make if a military base is closed during the term of the contract? How should the DoD protect itself from opportunistic behavior arising from unforeseen circumstances?

The first part of this chapter discusses what Navy Complex San Diego did to minimize risk of opportunistic behavior. We first examine the PPV agreement and the process the Navy Region Southwest used to structure the PPV agreement and examine how those decisions were or were not influenced by Transaction Cost Economics. The

next section identifies and discusses specific instances of opportunistic behavior that the Navy Region Southwest sought to avoid.

## **B. NAVY REGION SOUTHWEST CONTRACTUAL AGREEMENT**

When the Department of the Navy (DON) sought alternatives to remedy the housing shortage that was plaguing the San Diego area, a positive experience that it had in Everett, WA was the Public Private Venture (PPV). Navy Facilities (NAVFAC) studied the lessons learned from the Everett PPV and set out to create an agreement that would build on its successes. NAVFAC wanted to lengthen the timeframe of the agreement in order to maximize the opportunities for both the contractor and Navy Region Southwest. Navy Region Southwest wanted to avoid the out of pocket costs borne by military family members. (Sorce, 2000) Rents charged in Everett were below market rate; however, that arrangement required the Navy to seek Congressional approval for Differential Lease Payments (DLP). DLP are payments given to either the service member or the contractor to make up the difference between the Basic Allowance for Housing (BAH) given to the contractor and the agreed upon rental charge.

The agreement the Navy sought used two steps, 1) a Request for Qualifications (RFQ) was submitted to interested parties and 2) a Request for Proposals (RFP) would be submitted by those selected to submit bid or proposals. Both the RFQ and RFP are discussed briefly below. Specific benefits and potential problems with the agreements are discussed later in the chapter.

### **1. Request for Qualifications (RFQ)**

Interested parties are invited to submit a statement that outlines their overall concept for the development of and their approach to the operation and management of the program envisioned. Specific areas to be addressed are description of past performances, with regard to developments of a similar nature, scope and scale. Other areas to be addressed are:

- Vision Statement
- Organization/Team Composition
- Development Qualifications, Experience and Past Performance

- Operations and Management Qualifications, Experience and Past Performance
- Qualifications, Experience and Past Performance of Key Program Participants
- Financial Information (NAVFAC, 1999)

## **2. Request for Proposals (RFP)**

After the Navy received responses to the RFQ, they evaluated them and asked no more than four investor/developer teams to each submit a proposal. The DON would select the proposal that would provide the best value. (NAVFAC, 1999)

## **3. Contract Goals Set Out by Navy Region Southwest**

The contract goals set out by the Navy Region Southwest to pursue a PPV were to (1) minimize government risk, (2) utilize financial leverage to create family housing, (3) obtain life cycle cost savings, (3) avoid selling land and assets to mitigate the risk of potential PPV, (4) create high quality, energy efficient designs, (5) ensure adequate unit size for each family, (5) ensure safe housing complex, and (6) ensure zero out of pocket expenses for rents. (Sorce, 2003)

### ***a. Government Risk***

Although the 1996 Defense Authorization Act, Public Law 104-106 allows the DON to transfer title of Federal property, the DON elected to enter into a long term contract of 50 years. The DON is providing the contractor with a long-term lease to minimize the risk of the Navy losing the land due to contractor bankruptcy. The 50-year lease allows the DON to evaluate program outcomes and encourages the contractor to develop a vested interest in the overall successes that result from the length of the contract (see additional details below).

### ***b. Financial Leverage***

The aspects of the financial leverage the Navy Region Southwest chose to pursue were covered in chapter II, section F. In essence, what the Navy wanted to accomplish was to shift the burden and risk of obtaining the financing to the contractor. The way financial leverage is obtained by the DON is explained in chapter III.

*c. Selling of Land*

When establishing guidelines for housing privatization, DOD authorized the transfer or selling of land for the Public Private Ventures (PPV). The DON chose not to pursue this avenue. They instead chose an approach that still accomplished a goal of providing the contractor a viable interest in the venture but kept the ownership of the land. They chose to use an agreement with a 50-year lease, which is 40 years longer than what was used for the Everett, Washington housing privatization. The DON will lease the DOD owned land in the San Diego area for a sum of one dollar for the entire term of the lease. By leasing the land for the PPV, the DON has reduced the risk of losing the land because DON will retain the land together with “any and all improvements, fixtures, and equipment, and any appurtenances thereto, situated on, in and under the land.” (NAVFAC, 1999)

*d. Quality, Size, and Safety of Family Housing*

The agreement calls for the contractor to build units in accordance with the minimum standards set for family housing on Government land, specifically from the Privatization of Family Housing Naval Complex San Diego document, Appendix 1 (NAVFAC, 1999):

in accordance with the Final Environmental Assessment for Naval Training Center Military Family Housing, dated February 1999 and the Redevelopment Plan for the naval Training Center Redevelopment Project approved by the Redevelopment Agency of the City of San Diego, dated April 1997.

The agreement annotates a lengthy list of provisions that ensures the Government and service family members receive what is promised - basically to upgrade the standard of military family housing to a level more resembling middle class.

*e. Zero out of Pocket Expenses*

The agreement has been structured so that the military family member pays a rental rate that is equal to Basic Allowance for Housing (BAH) less an amount to cover normal electric and gas utilities. Basic utilities (electric and gas) are to be the responsibility of the tenant, but within given BAH. The rental rates are adjusted annually

based on the congressional adjustments for BAH payments for the San Diego area. A formula that adjusts rental rates to compensate for normal utility usage (electric and gas) are agreed upon by both the DON and the contractor.

### **C. EXPLORING TRANSACTIONAL COST THEORY AS IT RELATES TO THE NAVAL COMPLEX SAN DIEGO PRIVATIZATION AGREEMENT**

This section will examine the agreement or proposals the Department of the Navy (DON) solicited for the Naval Complex San Diego Public Private Venture (PPV). We reviewed the areas that the DON wanted to address in section B. This section also examines the transaction costs associated with the agreement. We will consider whether the Naval Region Southwest can create the type of PPV agreement that will deter opportunistic behavior from both the contractor and Navy, limit risk (financial, failure), and provide the Navy with a viable financial alternative for military family housing. As noted in Chapter III, as an asset becomes more specific (in this case the both housing and the land) and more appropriable rents are created (and therefore the possible gains from opportunistic behavior increases), the costs of contracting or agreement will generally increase more than the cost of vertical integration. (Klein, 2003) This condition is precisely the opposite of what the DON hopes to achieve with the privatization of family housing. Why is this different than what the theories of transactional costs indicate will happen? Although TCE offers reasons where outsourcing may be preferred, this section shall look at the reasons and offer explanations as to why it may be different.

The DOD has determined that divesting itself from building and managing military family housing in favor of Public Private Ventures would be the quickest and most economical way to upgrade MFH. As described in Chapter II, DON has determined that the most feasible and economical vehicle is a Limited Liability Corporation (LLC). An LLC is an economically enforceable contract which can be enforced through the judicial system.

A long-term contract, intended to avoid ownership responsibilities and still provide family housing service, can take two forms. They are: (1) an explicitly stated, legally enforceable contractual guarantee or (2) an implicit contractual guarantee by the market mechanism of withdrawing future business if opportunistic behavior occurs.

(Klein, 2003) The second condition is the type of contract that this section explores in the following areas, (1) cost of cheating, (2) a restrictions vs. constraints agreement, (3) the financial contracting and (4) how the contract follows a transactions cost model.

### **1. Cost of “Cheating”**

Cost of “cheating” is an effective, non-legal way of enforcing a contract, the loss to an opportunistic firm’s reputation, as a means for ensuring contracts. (Klien, 2003) The DOD can reduce the firm’s tendency to “cheat” by ensuring their rents will increase with the rise of the economy. This is taken care of only by coincidence by Congressional increases in the service members’ Basic Allowance for Housing (BAH). One way to ensure the contractor does not perform in an opportunistic fashion is to provide the contractor with the maximum amount of rents allowable over the life of the contract. The contractor will then want to maximize returns on investment, and not act in a way that would jeopardize their returns by “cheating” on the contract. Another example of the contractor cheating would be to allow non-military members to rent housing units when there are enough military members available to rent open units in order to gain higher rents. If the contractor is able to gain a higher rent, a contractor may be tempted to rent to the public when they can gain a higher rent than they would receive from a military family.

### **2. Restrictions vs. Constraints Agreement**

When studying the Navy Facilities (NAVFAC) Agreement DON used when soliciting contractors to join with to create a Public Private Venture (PPV), the Navy’s apparent strategy was to provide the contractor with the maximum allowable amount of flexibility. The agreement describes the outcomes the DON wants from the construction of family housing, as well as the maintenance and management of the privatized units. In this contract the Navy and Lincoln/Clark have agreed to a list of outcomes. One outcome is the specified amount of rents the contractor shall receive; another outcome for the Navy is a specified number of family housing for enlisted personnel and officers.

An agreement that is inclusive of all possible outcomes would be both impossible to write and costly, even if attainable. What the Navy agreement did was list the outcomes that the Navy and Lincoln/Clark both agreed to in the Public Private Venture.



Those items that were not included in this list of outcomes are, in effect, “ruled out” of the contract. There are certain tradeoffs with this method of contract negotiating. One advantage is that both parties are more likely to choose outcomes that fit their circumstances. (Williamson, 1971) Along with this flexibility there are certain restrictions built into the agreement. These restrictions are in the form of management requirements. The Navy is demanding high quality property management, in order to protect its interests, and requires the firm replace the company if it does not provide the agreed outcomes both parties have agreed to. The agreement constraints are in the form of what the firm “must” do. For example the firm must construct the family housing in accordance with Public Law 102-522, 15 USC 2227. The agreement’s restrictions specify what the firm “cannot” do. For example, the firm cannot charge rent greater than the service member’s BAH (including normal utility costs).

What the Navy did when designing the agreement was to take the lessons learned from other PPVs and use them to improve the contract. It set out to create an agreement that did not try to incorporate every possible outcome, but did attempt to guarantee the desired outcome and what should not occur.

### **3. Economies of Scale**

The size of the housing development projects are such that large companies with property development and management expertise are sought. Thus far, the firms involved have been large well established firms and have involved joint ventures between firms that have both experience in building and property management. In the case of the development in the San Diego area, a joint venture was formed between Lincoln Property Company (property management) and Clarke Reality Builders (construction). With this type of expertise, DON should save money over the lifetime of the contract since the management of the housing will be handled by a professional firm, with tenants who are a relatively homogenous population (all military service members).

Small military communities (300 or fewer housing units) have been given to smaller firms which will follow the same template. Following these joint ventures’ success, the General Services Administration (GSA) has been surveying government

tenants and management firms to develop government office buildings to replace old and obsolete infrastructure.

#### **D. EXAMINING OPPORTUNISTIC BEHAVIOR AS IT RELATES TO THE NAVAL COMPLEX SAN DIEGO CONTRACT**

This section will examine some factors the Navy Region Southwest had to contend with when creating an agreement that would deter opportunistic behavior. As described above in Chapter IV and the book, Managing Business Transactions, opportunistic behavior is a situation where one party takes advantage of a position which has arisen from an exchange of some sort. These opportunistic behaviors are the result of “loopholes” or lack of restrictions within the agreement where the firm can take advantage of the situation. This section of the chapter looks at lessons learned from prior contracts. The four areas of concern are length of the contract, how the contract is financed, the structure of the joint venture, and the implications of contractor reputation.

##### **1. Length of the Naval Complex San Diego Agreement**

The Navy Region Southwest agreement called for a land lease of 50 years. When the Department of the Navy (DON) first entered in the Military Housing Privatization Initiative (MPHI) in Everett, Washington, the contract period was ten years. This short period did not work for the contractor. One reason is the contractor did not have a vested interest in the outcomes of the project. For instance, the contractor would finance a large portion of the cost of new housing and was guaranteed rents for only the ten year period. This would be an incentive for the contractor to let the housing maintenance slip to increase profits. This type of shirking can also be called opportunistic behavior where the contractor may take advantage of the short contract by 1) building substandard housing and 2) reducing the amount of maintenance provided in order to have higher cash flows during the course of the contract.

In order to minimize the opportunistic behaviors NAVFAC extended the length of the lease to 50 years with the DON still retaining the residual rights to the land and existing infrastructure. By increasing the agreement to a period of 50 years, NAVFAC created a vested interest with the contractor to build suitable homes and to provide adequate maintenance for them. Rubin (Managing Business Transactions) suggests that

“the greater the level of specific investment needed in a series of contracts, the greater the benefits of long term contracts.” Although long term contracts still include possibilities of opportunism, they can be mitigated with specific constraints or restrictions. The contractors have some residual rights to the property, although the government still owns the land and buildings. This is partially accomplished by guaranteeing rents for a longer period of time, giving the contractor an interest in preserving this cash flow. Sam Merrick who is a general manager with Lincoln/Clark emphasized in an interview in the Journal of Property Management that:

...in our experience, it takes a substantial investment and long-term planning to have a successful program and this is not a program that a company should undertake as a short-term investment. You need significant resources to be successful.

## **2. Financing of the Contract**

This type of PPV has been seen as an opportunity for contracting firms, such as Clark/Pinnacle, Lincoln/Clark, and Picerne to receive steady profits over long periods of time. For example, using the housing privatization in the San Diego area, if one assumes 90% of the 3,248 units are occupied at any given time (2,923 units) and given average basic allowance for housing (BAH) of \$16,000 per family then, ignoring inflation and increases in BAH, Lincoln/Clark could expect to receive \$46.8 million a year or \$2.34 billion over the course of the contract. These amounts provide the firm with relatively low risk, positive cash flows. These numbers are based on an average BAH, but could depend on what pay grades are attracted to live in the privatized housing units.

## **3. Joint Venture**

The creation of a joint venture between the DON and Lincoln/Clark reduces the possibility for opportunism. When considering this issue, one needs to determine who is bearing the risk for the Military Privatization Housing Initiative (MPHI). The majority of the financial risk is borne by Lincoln/Clark, who would lose a large investment if the project failed. By creating a joint venture with Lincoln/Clark, both entities benefit because DON obtains adequate family housing, while the contractor receives guaranteed cash flows for an extended period of time. “Any attempt by either party to exploit the

venture will impose costs on both parties since both own assets of the joint venture.” (Rubin, 1990)

#### **4. Contractor’s Reputation**

Lincoln/Clark’s performance will be of great importance in any future joint ventures. Reputation does have some weight in limiting the opportunistic behavior. As described above, the MFPI contractor in Everett, WA could have used the contract to make a one-time profit of the rental cash flows while the maintenance and operation standards were allowed to deteriorate. This behavior may lessen the likelihood of a contractor ever receiving another government, state or municipal contract. Pride in one’s reputation will limit opportunistic behavior, and can be used to apply pressure for positive results. For example, the agreement has provisions for the family members, living in the housing, to provide feedback on the quality, maintenance, and management of the housing. This feedback is used to measure how well Lincoln/Clark is performing. If Lincoln/Clark does not receive adequate feedback from its customers, DON will intervene to determine the problem, thus again limiting any shortcuts or opportunistic behavior.

Performance incentives, structured into the contract, provide means for Lincoln/Clark to increase its profits and reputation for performance. Under the Cascade of Funds described in Chapter III, Property Management fees are based on performance indicators such as independent satisfaction surveys, housing turnaround times, service request response times, and semi-annual inspections conducted by independent inspectors. These benchmarks are also collected and sent to the DoD as a basis of assessing how well MHPI is performing.

#### **E. CHAPTER SUMMARY**

This chapter explored the major aspects that DON felt were important when seeking public firms as partners for a Public Private Venture (PPV). The main purpose was to reduce the financial risk of the DOD leaving the public firms with the burden of obtaining the bulk of the financing needed. Another objective was to ensure that the DOD retained the deed to the land in the San Diego area if the PPV were to dissolve. Also, DON intended to obtain adequate military housing for its service members.

Finally, DON aimed for housing provisions much faster than using the Military Construction (MILCON) approach.

The next section examined aspects of the contract Navy Region Southwest used to partner with Lincoln/Clark to build family housing. These aspects minimize unintended costs that manifest themselves within contract execution and must be considered transactions costs. These aspects were explored, explained, and the approach NAVFAC used to minimize or eliminate these costs was explained. Lincoln/Clark could expect to receive steady and stable positive cash flows over the term of the agreement, which alone provides a significant incentive to remain within the partnership.

The final section described different aspects of opportunism and how these affect the agreement between the DON and Lincoln/Clark. The areas that were explored were contract finance and contractor reputation. The joint nature of the contract ensures a vested interest, in the outcomes for the service members, DON, and Lincoln/Clark. Finally, the high visibility of the agreement leads to contractor reputation being on the line.

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## **VI. LESSONS LEARNED FROM PUBLIC PRIVATE VENTURE**

### **A. INTRODUCTION**

It's been over six years since the Navy embarked on a partnership with private developers to revitalize its military housing inventory. As expected, it has not been a perfect venture without any challenges. Based on lessons learned, the Navy has and continues to refine its planning and execution of the housing privatization program. This chapter will discuss the Navy's public-private venture lessons learned management process. The Navy Facilities Engineering Command (NAVFAC) collects and disseminates lessons learned to improve practices in executing the Military Housing Privatization Initiative (MHPI) program. Furthermore, the chapter seeks to detail an assessment of the Navy's Public Private Ventures (PPV) program and to answer the question whether those lessons learned help NAVFAC to improve its business practices or to prevent the recurrence of significantly adverse outcomes.

### **B. THE PROJECT MANAGER GUIDE**

Since the inception of the housing privatization program, NAVFAC Special Venture Acquisition (SVA) office has systematically collected, maintained, and disseminated lessons learned from executing partnerships with private developers. Much of that performance information tips for success, and good practice examples were streamlined, continuously updated, and incorporated into a living document called "The Project Manager Guide to Success." NAVFAC SVA uses the guide to educate the housing privatization personnel, acculturate them to a new and evolving method of operations, and stimulate further discussion, innovation, and improvement in the privatization process. When asked about the Project Manager Guide and lessons learned, Mr. Rick Flansburg, a Navy civilian expert in housing privatization wrote:

We publish additional guidance/lessons learned every six months via updates to our PM Guide. We at NAVFAC SVA have a representative working with our field components throughout project life span: feasibility, development, source selections, exclusive negotiations, development period (construction), and stabilized operations. Within SVA we meet weekly to review project progress, resolve issues, and to

anticipate next steps. As lessons learned of changes/additions to guidance are identified, these are coordinated within SVA and applied immediately to ongoing projects. Additionally, they are captured and issued with updates to the PM Guide. (Flansburg, 2004)

## **C. LESSONS LEARNED**

### **1. Documented Lessons Learned**

As discussed in the previous section, many lessons or experiences were recorded and reported up the chain. The below listed lessons were documented in the recent Program Evaluation Plan submitted to Congress:

- Regional Deal-early coordination between the Activity and Regional leadership, the Engineering Field Activities Restate and Acquisition, Special Ventures Acquisition and CNI Housing is essential for successful execution. Due to these Regional deals crossing state lines, working very early in the process with Local and State authorities is essential.
- Post PPV management and organizational structures should be developed well in advance of transaction.
- Accurate, defensible requirements critical to obtaining project approval.
- Coordinate joint Housing Market Analysis (HMA) in locations where more than one service is privatizing housing.
- Continue to include senior enlisted and other local staff in the PPV process.
- Periodic Joint Service privatization meetings are beneficial for sharing lessons learned and discussing new issues. (PEP, 2003)

### **2. Field Experiences and Undocumented Lessons Learned**

The past six years yielded other lessons that eventually led to changes in tactics. First, the Navy has learned the value of economy of scale in regional deals. It has found a significant advantage in combining installations and putting all of those housing inventories under a single package. Large packages are more attractive to developers and are less expensive per unit than small ones to execute. (Flansburg, 2004)

Second, the Navy discovered that its referral system was opposite to the Marine Corps'. For Navy family housing, the base housing organization receives notice of vacancies from the property manager, and it responds by forwarding names of referrals to the property manager. In contrast, when vacancies become available in privatized Marine



Corps housing, the property manager draws directly from the electronic wait list maintained by the housing organization. Currently, the housing privatization staff is leaning toward the adoption of the Marine Corps referral system in order to speed up the process and increase occupancy. (Flansburg, 2004)

Third, the housing privatization staff experienced the real business of property management. Early projects in San Diego had some problems getting service members to pay their rent. Many would skip out on the last month's rent. The staff had anticipated this by requiring either a month's deposit - or - the service member had to sign up for an allotment. However, the region and installation thought that this was a hardship for those currently living in the homes and the project manager did not insist on either a deposit or an allotment. According to Mr. Flansburg, lost rental revenue for San Diego was over \$2M for the first year of privatized operations. Now, lost rent is considered an accepted operational parameter in the business, but not to this extent. All new projects the privatized housing and property management now require either a month's deposit, or the service member has to sign up for an allotment. (Flansburg, 2004)

#### **D. NAVFAC SELF-ASSESSMENT**

The Navy thinks they are executing the MHPI program soundly and its PPV program is on track to eliminate the Navy's inadequate housing problem by 2007. To date the PPV has not experienced any contract protests from private developers. That's a good thing, since protests mean litigation and delays to the program (Flansburg, 2004). To properly monitor and assess the PPV's health and make adjustments, NAVFAC SVA Division emphasizes the following four areas: Quantity, Quality, Cost, and Time.

##### **1. Quantity**

As the MHPI has gained momentum, more family housing units are either being placed in use or under construction. Thus far 74,153 units (see figure below) have been awarded. 62,254 units will be privatized over the next three years under pending projects. (DoD MHP, 2004)

Year	Projects Awarded	Total Units
1996	1	404
1997	1	185
1998	1	420
1999	1	2,663
2000	5	2,222
2001	4	10,929
2002	4	9,353
2003	10	28,915
2004	12	19,062
Total		74,153

Table 4. Number of Projects Awarded Per Year

With this scope of housing privatization and the large number of units, there are several items that each service is required to report to DoD. These items all fall under a heading of product size. There are 11 items that are reportable in the PEP:

- **Total number of base housing units before privatization.** Provides an inventory baseline.
- **Total number of units transferred.** Existing units that are slated to be transferred to successful bidders.
- **Total number of units replaced.** Actual number of units that will be replaced in the MPHI project.
- **Total number of units renovated.** Number of units deemed inadequate that will be renovated.
- **Total number of units with no initial work required.** Units that do not need renovation and are ready for occupancy.
- **Deficit Reduction.** Total number of housing units counted toward reducing installation housing deficit.
- **Total number of units demolished or sold without replacement.** Units that will not be replaced.
- **Total number of units privatized.** Total number of units that will be available after completion of the MHPI project phases.
- **Total number of inadequate units eliminated.** Units deemed inadequate by the service, includes those units being renovated and demolished.
- **Projected date all inadequate units are eliminated.** Projected date used for Community Development Management Plan (CDMP).

- **Total number of base housing units after privatization.** Total number of housing units that will be available after MHPI development project.  
(DoD MHP, 2004)

All of the items listed above help to manage the many different MHPI projects in various regions. The metrics used are used as a management control system with which managers can keep their finger on the pulse of different projects and perhaps intervene when needed. The next area considered is important because of the speed at which family housing is being transferred, as noted by Mr. Flansburg, NAVFAC HQ:

We are executing more projects at a faster pace than ever before. We are able to do so as we've staffed at an appropriate level both at HQ and the Field and we've developed standard processes/documents and issued written guidance to all staff. Our HQ staff is primarily charged with insuring conformance to the standards. (Flansburg, 2004)

## **2. Quality**

It is difficult to measure quality since it has many subjective components. What really is measured? DoD has chosen to measure quality by determining whether the tenant chooses to move into the housing unit or whether it was assigned to them. Additionally, the way they measure tenant satisfaction is different, through comprehensive surveys. The survey at each project site is different, but the results, overall tenant satisfaction, are tracked. In the early stages of Public Private Ventures, the overall quality of new housing units has been more than adequate. It has not been a difficult task to improve quality since the majority of housing being replaced is in disrepair and old (originally built in the 1940s and 1950s). Whether the quality of housing remains high over the life of the agreement is still to be determined.

What DoD is trying to accomplish at many of the bases is a community that provides child care, teen centers, and sometimes gymnasiums. The individual services, as well as the DoD, have recognized that these types of communities provide quality of life improvements that military member families have requested satisfaction surveys. Below is how Mr. Flansburg describes the DoD process, and quality of the family housing:

We believe that our processes are the most efficient of the DoD components. Developers incur less cost and have a clear understanding of our intent. We have never received a protest on a selection. Our documents are well researched, documented, and are based on standard templates. The quality of product is superb. Military Families are overjoyed with the new homes and sense of community.” (Flansburg, 2004)

### **3. Cost**

Even before DoD becomes a partner with a contractor, the economics of any project are evaluated in detail to determine whether or not it is fiscally advantageous to proceed. Two primary considerations are life cycle cost for privatization (compared to traditional methods) and the leverage of government funds achieved. When assessing whether the MHPI has been a successful venture, managers point to savings with PPV leverage. Many MHPI projects have started with only one-eighth of total costs incurred by DoD; this leverage has been the best indicator of initial successes of the programs. According to Mr. Flansburg, “costs have regularly decreased, as a percentage of total development costs over the past several years.” The trends are tracked through the MHPI Program Evaluation Plan which requires the contractors to report mortgage details, debt coverage ratio, and government return on investment. Although projects vary in size, the government return on investment normalizes and provides a basis for comparison. Larger, regional projects are driving larger project sizes with the same or similar level of pre-execution due diligence and legal work.

### **4. Time**

In order to reach the DoD’s goal of having adequate housing by 2010, the DoD tracks what is called cycle time. Cycle time measures the time it takes to get through five different stages, 1) concept development, 2) source selection, 3) exclusive negotiations 4) approvals/signatures, and 5) operations and maintenance funds transfer plans and actual funds transfer. When the MHPI first began, the cycle times were 24-40 months. Cycle times have pared down to 16 months. Now that there are many players in the MHPI and source selection is not required for follow-on phases, cycle times are standardized on a 12 month execution timeframe (Flansburg, 2004). The following graph depicts the Navy PPV execution times:

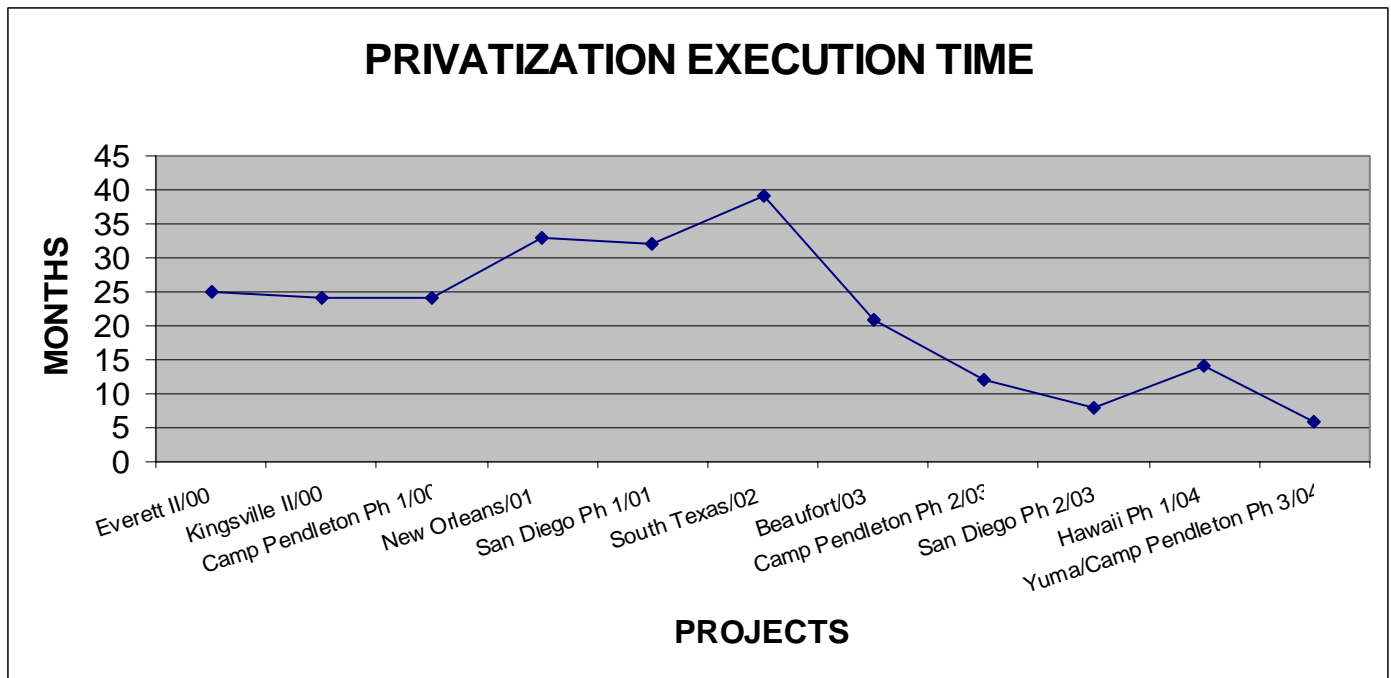


Figure 9. Execution times for PPVs

## E. LESSONS LEARNED ASSESSMENT

Review of the Navy's PPV lessons learned process and the lessons documented in the PEP, answers the question: Are we getting better at executing the PPV deals? The data we were able to gather, seem to suggest that the Navy has slowly, but surely, learned from the mistakes in earlier projects and continued to refine its business practices. The property management mistakes inherited from the San Diego project proved that the Navy could learn from its missteps and then take corrective actions necessary to improve and prevent similar recurrences.

The Navy's decision to combine many installations housing inventories under regional deals (to drive down costs) proves that it has realized the lessons learned. This action also means that the Navy has done its homework well and is getting better at the PPV process.

Moreover, the increased number of PPV projects that the Navy has embarked on since 1996, and the time it has taken to execute those deals, provide solid evidence that it's continuously getting better at handling the housing privatization tasks. For example,

NAVFAC SVA has developed schedule templates and closely worked with other staffs in the field to drive down the execution timeframe from 24 to 40 months to a more standardized 16-months.

## **F. CHAPTER SUMMARY**

This chapter provides some insight of NAVFAC's lessons learned management system and its continuing process to refine the best practice for the PPV. Through a formal (the semi-annual Performance Evaluation Plan) and an informal in-house process (Project Manager Guide to Success); NAVFAC has instituted a systematic process to document past mistakes from earlier projects and performance information. The information, then, is refined and fed back to the field via tips for success or best practice templates in order to obtain better deals with private developers.

The Navy's accomplishment so far in the PPV program has proven that its lessons learned management is well structured and that the Navy has used these learned lessons to successfully improve its housing privatization undertaking. There are four points to support this notion. One, the Navy has continued to privatize and renovate more inadequate housing with more deals coming. Two, it has and continues to enjoy good relationships with private builders. And it believes that the quality of the privatized housing has been greatly improved, citing customer satisfaction and the high standard of the newly constructed housing. Three, the Navy has been able to combine regional deals to reduce cost. And last but not least, it has successfully reduced the cycle time required to close the deal on projects.

Based on the limited data provided from NAVFAC, we can conclude that the Navy has worked to apply best practices in executing its housing privatization program through a lessons learned system process. The transition from military housing to privatized housing is no doubt a dynamic, evolving, time-consuming, and costly process. Sharing lessons learned and knowledge will definitely contribute significantly to the success of the Navy Public Private Ventures program.

## **VII. CONCLUSIONS AND RECOMMENDATIONS**

### **A. INTRODUCTION**

This study provided a background of military family housing issues and concerns and current Department of Defense privatization initiatives to modernize and construct quality housing. Additionally, this study focused on Navy privatization initiatives and how the concepts of Transaction Cost Economics (TCE) could be applied when forming future partnerships with private industry.

### **B. PUBLIC PRIVATE VENTURE**

#### **1. Conclusions**

The Department of Defense (DoD) has overcome many obstacles in implementing various privatization programs. Some of these were Congressional budget scoring guidelines, less than favorable reports from the Government Accountability Office, and queries from Congress as to the success and benefits of the program.

Despite the challenges with implementing a new and untried program, DoD has made significant strides in renovating and building quality housing for military families since the enactment of the 1996 National Defense Authorization Act. The twelve authorities the Act created have resulted in the privatization of over 55,000 units as of December 2003, with over 100,000 units expected by the end of fiscal year 2004 (PEP, 2003).

DoD devolved the privatization program to the Services to allow tailoring for each component's unique culture, and to speed up implementation. Their current role is that of overall coordinator and information conduit to senior DoD leadership and Congress. It appears that sufficient time has elapsed to allow for a more hands-on approach on the part of DoD.

#### **2. Recommendations**

Rotate Service-level MHPI managers among the Services for three to six months to observe, participate in, and learn each other's business practices and policies. The knowledge gained may help fine tune the program and allow for first hand presentation

and insertion of ideas and knowledge gained from experienced MHPI practitioners. This may also serve as an interim step for obtaining Service component buy-in to DoD privatization direction as detailed in the following paragraph.

DoD promulgate Military Housing Privatization Initiative (MHPI) best practices for adoption Department-wide. The DoD privatization office has already identified challenges and successes for all the Services through DoD's semi-annual Program Evaluation Plan (PEP) submission to Congress. Additionally, MHPI efforts among the Services are intensifying and a lengthy delay (18 to 24 months) by DoD may be too late to positively impact future MHPI initiatives.

Determine the feasibility of applying Navy MHPI to other Federal agencies. MPHI efforts appear to be achieving unprecedented success in providing quality housing and service and support enhancements based on the findings in this analysis. The Navy's innovative use of the joint venture authority provided by Congress may also be beneficial to other types of Federal projects. One example would be the construction and/or renovation of new Federal buildings and offices. Any excess space may then be made commercially available to generate ongoing income to offset construction/renovation efforts.

DoD develop measures to phase out of military family housing (MFH) altogether. The logic behind this recommendation is MFH is not a core mission to the defense of the United States. Furthermore, the private sector appears to be managing government housing in a superior manner as evidenced by recent privatization successes. Additionally, phasing out of this program will reduce DoD's logistics footprint and eliminate the associated infrastructure and life cycle costs. This would come at a time when the Government is facing funding shortfalls due to the Federal deficit and the looming Social Security Fund shortfall.

## **C. TRANSACTION COST ECONOMICS**

### **1. Conclusion**

Transaction Cost Economics (TCE) Theory has provided some illuminating insight into the success of the Navy's privatization program. In its most basic form, TCE



is a common sense approach taken by savvy managers in the course of making decisions. It is clearly evident that senior Navy management operated in a manner to minimize opportunistic behavior when establishing partnerships with private industry.

## **2. Recommendations**

Institute Defense Contract Audit Agency (DCAA) participation in all DoD MHPI similar to the Navy process documented in its memorandum of understanding (MOU) with the DCAA. (See Chapter III, Section D for a more detailed discussion of this MOU.) This effort would aid in establishing internal management controls, provide third party auditing, and serve as a balancing mechanism to DoD consultants. Furthermore, opportunistic behavior on the part of consultants has the potential to be substantially reduced. An added benefit of utilizing DCAA services is that they are already tasked by the Under Secretary of Defense (Comptroller) with performing advisory and auditing services to all DoD components responsible for procurement and administration. Additionally, no additional funds would be required from their customers, thus far.

DoD consider adopting the “Cascade of Funds” model to future initiatives. (See Chapter III, Section H for a discussion on this model.) This model may aid in minimizing opportunistic behavior by private partners. It does this by providing financial incentives to private partners and/or subcontracted entities to optimize productivity and performance. These incentives would come from the awarding of excess cash flows generated as a result of a properly managed project coupled with documented superior service by satisfied tenants.

When feasible, 50-year partnerships should become standard for all future Public Private Ventures (PPVs). Lengthy partnerships will encourage contractor commitment to the success of the housing project and will more readily attract financial lending institutions that are seeking a more stable and extended income stream. Additionally, the long-term focus would serve to minimize opportunistic behavior among partners who would otherwise attempt to maximize their return on investment for shorter time periods.

## **D. LESSONS LEARNED PROCESS**

### **1. Conclusion**

The Navy, as well as the other Services, have always dealt with the lack of corporate knowledge due to the transient nature of assigned personnel. The NAVFAC Special Venture Acquisition (SVA) Division has implemented a dynamic lessons learned process to overcome this weakness. The SVA has developed a Project Managers (PM) Guide that appears to have proven beneficial to the success of subsequent projects. The PM Guide is maintained in an electronic format and is updated and distributed semi-annually by the SVA Division.

### **2. Recommendations**

The Navy should continue this process. It appears to be one of the key elements contributing to the success of its privatization initiatives. The culture that the SVA has created allows for candid feedback about failures along with the successes from field representatives is praiseworthy.

The tenets of TCE are being used by the Navy in an indirect fashion, but should be studied and used more directly as an aid in the lessons learned process.

## **E. AREAS FOR FURTHER RESEARCH**

This study focused on Navy privatization efforts. It would be useful to explore Army and Air Force privatization efforts in order to document their best practices and/or shortcomings. The application of TCE theory to their initiatives may also help improve their efforts. Additionally, this study would help document their processes for future analysis, improvement, and implementation.

The PM template, along with some details on how best to implement it into an organization, may be extremely valuable to organizations engaged in a variety of projects and initiatives. Therefore, the lessons learned process should be documented and disseminated for possible application to other organizations. Some areas to examine would be:

- method of data collection,
- analysis techniques,
- data filtering,
- data dissemination, and
- culture created to solicit candid feedback.

## **F. FINAL THOUGHTS**

Since the enactment of the 1996 National Defense Authorization Act, Department of Defense privatization efforts have proven to be successful. Feedback from tenant surveys has also been overwhelmingly positive. Furthermore, Military Family Housing Privatization Initiatives (MHPI) are meeting or exceeding associated metrics in the areas of housing shortage elimination, leveraging of Federal funds with private sector dollars, and reduced life cycle costs over previous military construction costs (PEP, 2003). Additionally, the Department of Defense has deftly managed individual Service initiatives and can now serve as a catalyst for implementing successful practices across all the Services. Lastly, NAVFAC SVA Division's application of TCE theory and their in-house lessons learned process has played a part in the Navy's privatization successes and may be useful to the MHPI program DoD-wide.

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## **APPENDIX A. EXCERPT OF USC FOR MILITARY FAMILY HOUSING**

### **10 USC CHAPTER 169. MILITARY CONSTRUCTION AND MILITARY FAMILY HOUSING**

#### **SUBCHAPTER IV. ALTERNATIVE AUTHORITY FOR ACQUISITION AND IMPROVEMENT OF MILITARY HOUSING**

*10 United States Code USC § 2871 (2003)*

##### **§ 2871. Definitions**

In this subchapter [*10 USC § § 2871 et seq.*]:

(1) The term "ancillary supporting facilities" means facilities related to military housing units, including facilities to provide or support elementary or secondary education, child care centers, day care centers, tot lots, community centers, housing offices, dining facilities, unit offices, and other similar facilities for the support of military housing.

(2) [Deleted]

(3) The term "construction" means the construction of military housing units and ancillary supporting facilities or the improvement or rehabilitation of existing units or ancillary supporting facilities.

(4) The term "contract" includes any contract, lease, or other agreement entered into under the authority of this subchapter [*10 USC § § 2871 et seq.*].

(5) The term "eligible entity" means any private person, corporation, firm, partnership, company, State or local government, or housing authority of a State or local government.

(6) The term "Fund" means the Department of Defense Family Housing Improvement Fund or the Department of Defense Military Unaccompanied Housing Improvement Fund established under section 2883(a) of this title.

(7) The term "military unaccompanied housing" means military housing intended to be occupied by members of the armed forces serving a tour of duty unaccompanied by dependents and transient housing intended to be occupied by members of the armed forces on temporary duty.

(8) The term "United States" includes the Commonwealth of Puerto Rico.

**HISTORY:** (Added Feb. 10, 1996, P.L. 104-106, Div B, Title XXVIII, Subtitle A, § 2801(a)(1), 110 Stat. 544; Oct. 17, 1998, P.L. 105-261, Div B, Title XXVIII, Subtitle A, § 2803, 112 Stat. 2202; Oct. 5, 1999, P.L. 106-65, Div B, Title XXVIII, Subtitle A, § 2803(a), 113 Stat. 848.)

(As amended Dec. 2, 2002, P.L. 107-314, Div B, Title XXVIII, Subtitle A, § 2803(b), 116 Stat. 2705; Nov. 24, 2003, P.L. 108-136, Div A, Title X, Subtitle E, § 1043(c)(6), 117 Stat. 1612.)

### ***10 USC § 2872 (2003)***

#### **§ 2872. General authority**

In addition to any other authority provided under this chapter [***10 USC § § 2801*** et seq.] for the acquisition or construction of military family housing or military unaccompanied housing, the Secretary concerned may exercise any authority or any combination of authorities provided under this subchapter [***10 USC § § 2871*** et seq.] in order to provide for the acquisition or construction by eligible entities of the following:

- (1) Family housing units on or near military installations within the United States and its territories and possessions.
- (2) Military unaccompanied housing units on or near such military installations.

**HISTORY:** (Added Feb. 10, 1996, P.L. 104-106, Div B, Title XXVIII, Subtitle A, § 2801(a)(1), 110 Stat. 545; Oct. 5, 1999, P.L. 106-65, Div B, Title XXVIII, Subtitle A, § 2803(b), 113 Stat. 849.)

### ***10 USC § 2872a (2003)***

#### **§ 2872a. Utilities and services**

(a) Authority to furnish. The Secretary concerned may furnish utilities and services referred to in subsection (b) in connection with any military housing acquired or constructed pursuant to the exercise of any authority or combination of authorities under this subchapter if the military housing is located on a military installation.

(b) Covered utilities and services. The utilities and services that may be furnished under subsection (a) are the following:

- (1) Electric power.
- (2) Steam.
- (3) Compressed air.
- (4) Water.
- (5) Sewage and garbage disposal.
- (6) Natural gas.
- (7) Pest control.
- (8) Snow and ice removal.

- (9) Mechanical refrigeration.
- (10) Telecommunications service.
- (11) Firefighting and fire protection services.
- (12) Police protection services.

(c) Reimbursement.

(1) The Secretary concerned shall be reimbursed for any utilities or services furnished under subsection (a).

(2) The amount of any cash payment received under paragraph (1) shall be credited to the appropriation or working capital account from which the cost of furnishing the utilities or services concerned was paid. Amounts so credited to an appropriation or account shall be merged with funds in such appropriation or account, and shall be available to the same extent, and subject to the same terms and conditions, as such funds.

**HISTORY:** (Added Oct. 30, 2000, P.L. 106-398, § 1, 114 Stat. 1654.)

(As amended Dec. 2, 2002, P.L. 107-314, Div B, Title XXVIII, Subtitle A, § 2802(a), 116 Stat. 2703.)

***10 USC § 2873 (2003)***

**§ 2873. Direct loans and loan guarantees**

(a) Direct loans.

(1) Subject to subsection (c), the Secretary concerned may make direct loans to an eligible entity in order to provide funds to the eligible entity for the acquisition or construction of housing units that the Secretary determines are suitable for use as military family housing or as military unaccompanied housing.

(2) The Secretary concerned shall establish such terms and conditions with respect to loans made under this subsection as the Secretary considers appropriate to protect the interests of the United States, including the period and frequency for repayment of such loans and the obligations of the obligors on such loans upon default.

(b) Loan guarantees.

(1) Subject to subsection (c), the Secretary concerned may guarantee a loan made to an eligible entity if the proceeds of the loan are to be used by the eligible entity to acquire, or construct housing units that the Secretary determines are suitable for use as military family housing or as military unaccompanied housing.

(2) The amount of a guarantee on a loan that may be provided under paragraph (1) may not exceed the amount equal to the lesser of--

- (A) the amount equal to 80 percent of the value of the project; or
- (B) the amount of the outstanding principal of the loan.

(3) The Secretary concerned shall establish such terms and conditions with respect to guarantees of loans under this subsection as the Secretary considers appropriate to protect the interests of the United States, including the rights and obligations of obligors of such loans and the rights and obligations of the United States with respect to such guarantees.

(c) Limitation on direct loan and guarantee authority. Direct loans and loan guarantees may be made under this section only to the extent that appropriations of budget authority to cover their cost (as defined in section 502(5) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5))) are made in advance, or authority is otherwise provided in appropriation Acts. If such appropriation or other authority is provided, there may be established a financing account (as defined in section 502(7) of such Act (2 U.S.C. 661a(7))), which shall be available for the disbursement of direct loans or payment of claims for payment on loan guarantees under this section and for all other cash flows to and from the Government as a result of direct loans and guarantees made under this section.

**HISTORY:** (Added Feb. 10, 1996, P.L. 104-106, Div B, Title XXVIII, Subtitle A, § 2801(a)(1), 110 Stat. 545; Oct. 5, 1999, P.L. 106-65, Div B, Title XXVIII, Subtitle A, § 2803(c), 113 Stat. 849.)

#### ***10 USC § 2874 (2003)***

##### **§ 2874. Leasing of housing**

(a) Lease authorized. The Secretary concerned may enter into contracts for the lease of housing units that the Secretary determines are suitable for use as military family housing or military unaccompanied housing.

(b) Use of leased units. The Secretary concerned shall utilize housing units leased under this section as military family housing or military unaccompanied housing, as appropriate.

(c) Lease terms. A contract under this section may be for any period that the Secretary concerned determines appropriate and may provide for the owner of the leased property to operate and maintain the property.

**HISTORY:** (Added Feb. 10, 1996, P.L. 104-106, Div B, Title XXVIII, Subtitle A, § 2801(a)(1), 110 Stat. 546.)

(As amended Dec. 2, 2002, P.L. 107-314, Div B, Title XXVIII, Subtitle A, § 2802(b)(1), (2), 116 Stat. 2703.)

#### ***10 USC § 2875 (2003)***



## **§ 2875. Investments**

(a) Investments authorized. The Secretary concerned may make investments in an eligible entity carrying out projects for the acquisition or construction of housing units suitable for use as military family housing or as military unaccompanied housing.

(b) Forms of Investment. An investment under this section may take the form of an acquisition of a limited partnership interest by the United States, a purchase of stock or other equity instruments by the United States, a purchase of bonds or other debt instruments by the United States, or any combination of such forms of investment.

(c) Limitation on value of investment.

(1) The cash amount of an investment under this section in an eligible entity may not exceed an amount equal to 33 1/3 percent of the capital cost (as determined by the Secretary concerned) of the project or projects that the eligible entity proposes to carry out under this section with the investment.

(2) If the Secretary concerned conveys land or facilities to an eligible entity as all or part of an investment in the eligible entity under this section, the total value of the investment by the Secretary under this section may not exceed an amount equal to 45 percent of the capital cost (as determined by the Secretary) of the project or projects that the eligible entity proposes to carry out under this section with the investment.

(3) In this subsection, the term "capital cost", with respect to a project for the acquisition or construction of housing, means the total amount of the costs included in the basis of the housing for Federal income tax purposes.

(d) Collateral incentive agreements. The Secretary concerned shall enter into collateral incentive agreements with eligible entities in which the Secretary makes an investment under this section to ensure that a suitable preference will be afforded members of the armed forces and their dependents in the lease or purchase, as the case may be, of a reasonable number of the housing units covered by the investment.

(e) Congressional notification required. Amounts in the Department of Defense Family Housing Improvement Fund or the Department of Defense Military Unaccompanied Housing Improvement Fund may be used to make a cash investment under this section in an eligible entity only after the end of the 30-day period beginning on the date the Secretary of Defense submits written notice of, and justification for, the investment to the appropriate committees of Congress or, if earlier, the end of the 14-day period beginning on the date on which a copy of the notice and justification is provided in an electronic medium pursuant to section 480 of this title.

**HISTORY:** (Added Feb. 10, 1996, P.L. 104-106, Div B, Title XXVIII, Subtitle A, § 2801(a)(1), 110 Stat. 546; Nov. 18, 1997, P.L. 105-85, Div B, Title XXVIII, Subtitle A, §

2805, 111 Stat. 1991; Oct. 5, 1999, P.L. 106-65, Div B, Title XXVIII, Subtitle A, § 2803(d), (h)(1), 113 Stat. 849.)  
(As amended Nov. 24, 2003, P.L. 108-136, Div A, Title X, Subtitle D, § 1031(a)(50), 117 Stat. 1602.)

### ***10 USC § 2876 (2003)***

#### **§ 2876. Rental guarantees**

The Secretary concerned may enter into agreements with eligible entities that acquire or construct military family housing units or military unaccompanied housing units under this subchapter [***10 USC § § 2871 et seq.***] in order to assure--

- (1) the occupancy of such units at levels specified in the agreements; or
- (2) rental income derived from rental of such units at levels specified in the agreements.

**HISTORY:** (Added Feb. 10, 1996, P.L. 104-106, Div B, Title XXVIII, Subtitle A, § 2801(a)(1), 110 Stat. 546; Oct. 5, 1999, P.L. 106-65, Div B, Title XXVIII, Subtitle A, § 2803(e), 113 Stat. 849.)

### ***10 USC § 2877 (2003)***

#### **§ 2877. Differential lease payments**

Pursuant to an agreement entered into by the Secretary concerned and a lessor of military family housing or military unaccompanied housing to members of the armed forces, the Secretary may pay the lessor an amount in addition to the rental payments for the housing made by the members as the Secretary determines appropriate to encourage the lessor to make the housing available to members of the armed forces as military family housing or as military unaccompanied housing.

### ***10 USC § 2878 (2003)***

#### **§ 2878. Conveyance or lease of existing property and facilities**

(a) Conveyance or lease authorized. The Secretary concerned may convey or lease property or facilities (including ancillary supporting facilities) to eligible entities for purposes of using the proceeds of such conveyance or lease to carry out activities under this subchapter [***10 USC § § 2871 et seq.***].

(b) Inapplicability to property at installation approved for closure. The authority of this section does not apply to property or facilities located on or near a military installation approved for closure under a base closure law.

(c) Terms and conditions.

(1) The conveyance or lease of property or facilities under this section shall be for such consideration and upon such terms and conditions as the Secretary concerned considers appropriate for the purposes of this subchapter and to protect the interests of the United States.

(2) As part or all of the consideration for a conveyance or lease under this section, the purchaser or lessor (as the case may be) shall enter into an agreement with the Secretary to ensure that a suitable preference will be afforded members of the armed forces and their dependents in the lease or sublease of a reasonable number of the housing units covered by the conveyance or lease, as the case may be, or in the lease of other suitable housing units made available by the purchaser or lessee.

(d) Inapplicability of certain property management laws. The conveyance or lease of property or facilities under this section shall not be subject to the following provisions of law:

(1) Section 2667 of this title.

(2) Subtitle I of title 40 [*40 USCS § § 101 et seq.*] and title III of the Federal Property and Administrative Services Act of 1949 (*41 U.S.C. 251 et seq.*).

(3) Section 1302 of title 40.

(4) Section 501 of the McKinney-Vento Homeless Assistance Act (*42 U.S.C. 11411*).

**HISTORY:** (Added Feb. 10, 1996, P.L. 104-106, Div B, Title XXVIII, Subtitle A, § 2801(a)(1), 110 Stat. 547; Nov. 18, 1997, P.L. 105-85, Div A, Title X, Subtitle G, § 1073(a)(60), 111 Stat. 1903; Oct. 5, 1999, P.L. 106-65, Div B, Title XXVIII, Subtitle A, § 2803(g), 113 Stat. 849; Dec. 28, 2001, P.L. 107-107, Div A, Title X, Subtitle E, § 1048(d)(1), 115 Stat. 1227; Aug. 21, 2002, P.L. 107-217, 3(b)(23), 116 Stat. 1297.)

### ***10 USC § 2879 (2003)***

**[§ 2879. Repealed]**

#### **HISTORY; ANCILLARY LAWS AND DIRECTIVES**

This section (Act Feb. 10, 1996, P.L. 104-106, Div B, Title XXVIII, Subtitle A, § 2801(a)(1), 110 Stat. 547) was repealed by Act Dec. 2, 2002, P.L. 107-314, Div B, Title XXVIII, Subtitle A, § 2802(c)(1), 116 Stat. 2703. It provided for the interim lease of completed military housing units pending completion of the project.

**10 USC § 2880 (2003)**

**§ 2880. Unit size and type**

(a) Conformity with similar housing units in locale. The Secretary concerned shall ensure that the room patterns and floor areas of military family housing units and military unaccompanied housing units acquired or constructed under this subchapter [**10 USC § § 2871 et seq.**] are generally comparable to the room patterns and floor areas of similar housing units in the locality concerned.

(b) Inapplicability of limitations on space by pay grade.

(1) Section 2826 of this title shall not apply to military family housing units acquired or constructed under this subchapter [**10 USC § § 2871 et seq.**].

(2) The regulations prescribed under section 2856 of this title shall not apply to any military unaccompanied housing unit acquired or constructed under this subchapter [**10 USC § § 2871 et seq.**].

**HISTORY:** (Added Feb. 10, 1996, P.L. 104-106, Div B, Title XXVIII, Subtitle A, § 2801(a)(1), 110 Stat. 548.)

(As amended Nov. 24, 2003, P.L. 108-136, Div B, Title XXVIII, Subtitle A, § 2806, 117 Stat. 1722.)

**10 USC § 2881 (2003)**

**§ 2881. Ancillary supporting facilities**

(a) Authority to acquire or construct. Any project for the acquisition or construction of military family housing units or military unaccompanied housing units under this subchapter [**10 USC § § 2871 et seq.**] may include the acquisition or construction of ancillary supporting facilities for the housing units concerned.

(b) Restriction. A project referred to in subsection (a) may not include the acquisition or construction of an ancillary supporting facility if, as determined by the Secretary concerned, the facility is to be used for providing merchandise or services in direct competition with--

- (1) the Army and Air Force Exchange Service;
- (2) the Navy Exchange Service Command;
- (3) a Marine Corps exchange;
- (4) the Defense Commissary Agency; or
- (5) any nonappropriated fund activity of the Department of Defense for the morale, welfare, and recreation of members of the armed forces.

**HISTORY:** (Added Feb. 10, 1996, P.L. 104-106, Div B, Title XXVIII, Subtitle A, § 2801(a)(1), 110 Stat. 548; Oct. 5, 1999, P.L. 106-65, Div B, Title XXVIII, Subtitle A, § 2804, 113 Stat. 849.)

***10 USC § 2881a (2003)***

§ 2881a. Pilot projects for acquisition or construction of military unaccompanied housing

(a) Pilot projects authorized. The Secretary of the Navy may carry out not more than three pilot projects under the authority of this section or another provision of this subchapter to use the private sector for the acquisition or construction of military unaccompanied housing in the United States, including any territory or possession of the United States.

(b) Treatment of housing; assignment of members. The Secretary of the Navy may assign members of the armed forces without dependents to housing units acquired or constructed under the pilot projects, and such housing units shall be considered as quarters of the United States or a housing facility under the jurisdiction of the Secretary for purposes of section 403 of title 37.

(c) Basic allowance for housing.

(1) The Secretary of Defense may prescribe and, under section 403(n) of title 37, pay for members of the armed forces without dependents in privatized housing acquired or constructed under the pilot projects higher rates of partial basic allowance for housing than the rates authorized under paragraph (2) of such section.

(2) The partial basic allowance for housing paid for a member at a higher rate under this subsection may be paid directly to the private sector source of the housing to whom the member is obligated to pay rent or other charge for residing in such housing if the private sector source credits the amount so paid against the amount owed by the member for the rent or other charge.

(d) Funding.

(1) The Secretary of the Navy shall use the Department of Defense Military Unaccompanied Housing Improvement Fund to carry out activities under the pilot projects.

(2) Subject to 90 days prior notification to the appropriate committees of Congress, such additional amounts as the Secretary of Defense considers necessary may be transferred to the Department of Defense Military Unaccompanied Housing Improvement Fund from amounts appropriated for construction of military unaccompanied housing in military construction accounts. The amounts so transferred shall be merged with and be

available for the same purposes and for the same period of time as amounts appropriated directly to the Fund.

(e) Reports.

(1) The Secretary of the Navy shall transmit to the appropriate committees of Congress a report describing--

(A) each contract for the acquisition of military unaccompanied housing that the Secretary proposes to solicit under the pilot projects;

(B) each conveyance or lease proposed under section 2878 of this title in furtherance of the pilot projects; and

(C) the proposed partial basic allowance for housing rates for each contract as they vary by grade of the member and how they compare to basic allowance for housing rates for other contracts written under the authority of the pilot programs.

(2) The report shall describe the proposed contract, conveyance, or lease and the intended method of participation of the United States in the contract, conveyance, or lease and provide a justification of such method of participation. The report shall be submitted not later than 90 days before the date on which the Secretary issues the contract solicitation or offers the conveyance or lease.

(f) Expiration. Notwithstanding section 2885 of this title, the authority of the Secretary of the Navy to enter into a contract under the pilot programs shall expire September 30, 2007.

**HISTORY:** (Added Dec. 2, 2002, P.L. 107-314, Div B, Title XXVIII, Subtitle A, § 2803(a)(1), 116 Stat. 2703.)

***10 USC § 2882 (2003)***

**§ 2882. Assignment of members of the armed forces to housing units**

(a) In general. The Secretary concerned may assign members of the armed forces to housing units acquired or constructed under this subchapter [***10 USC § § 2871 et seq.***].

(b) Effect of certain assignments on entitlement to housing allowances.

(1) Except as provided in paragraph (2), housing referred to in subsection (a) shall be considered as quarters of the United States or a housing facility under the jurisdiction of a uniformed service for purposes of section 403 of title 37.

(2) A member of the armed forces who is assigned in accordance with subsection (a) to a housing unit not owned or leased by the United States shall be entitled to a basic allowance for housing under section 403 of title 37.

(c) Lease payments through pay allotments. The Secretary concerned may require members of the armed forces who lease housing in housing units acquired or constructed

under this subchapter to make lease payments for such housing pursuant to allotments of the pay of such members under section 701 of title 37.

**HISTORY:** (Added Feb. 10, 1996, P.L. 104-106, Div B, Title XXVIII, Subtitle A, § 2801(a)(1), 110 Stat. 548; Nov. 18, 1997, P.L. 105-85, Div A, Title VI, Subtitle A, § 603(d)(2)(C), 111 Stat. 1783.)

### ***10 USC § 2883 (2003)***

#### **§ 2883. Department of Defense Housing Funds**

(a) Establishment. There are hereby established on the books of the Treasury the following accounts:

(1) The Department of Defense Family Housing Improvement Fund.

(2) The Department of Defense Military Unaccompanied Housing Improvement Fund.

(b) Commingling of Funds prohibited.

(1) The Secretary of Defense shall administer each Fund separately.

(2) Amounts in the Department of Defense Family Housing Improvement Fund may be used only to carry out activities under this subchapter with respect to military family housing.

(3) Amounts in the Department of Defense Military Unaccompanied Housing Improvement Fund may be used only to carry out activities under this subchapter with respect to military unaccompanied housing.

(c) Credits to Funds.

(1) There shall be credited to the Department of Defense Family Housing Improvement Fund the following:

(A) Amounts authorized for and appropriated to that Fund.

(B) Subject to subsection (f), any amounts that the Secretary of Defense transfers, in such amounts as provided in appropriation Acts, to that Fund from amounts authorized and appropriated to the Department of Defense for the acquisition or construction of military family housing.

(C) Proceeds from the conveyance or lease of property or facilities under section 2878 of this title for the purpose of carrying out activities under this subchapter [*10 USC § § 2871 et seq.*] with respect to military family housing.

(D) Income derived from any activities under this subchapter [*10 USC § § 2871 et seq.*] with respect to military family housing, including interest on loans made under section 2873 of this title, income and gains realized from investments under section 2875 of this title, and any return of capital invested as part of such investments.

(E) Any amounts that the Secretary of the Navy transfers to that Fund pursuant to section 2814(i)(3) of this title, subject to the restrictions on the use of the transferred amounts specified in that section.

(F) Any amounts that the Secretary concerned transfers to that Fund pursuant to section 2869 of this title.

(2) There shall be credited to the Department of Defense Military Unaccompanied Housing Improvement Fund the following:

(A) Amounts authorized for and appropriated to that Fund.

(B) Subject to subsection (f), any amounts that the Secretary of Defense transfers, in such amounts as provided in appropriation Acts, to that Fund from amounts authorized and appropriated to the Department of Defense for the acquisition or construction of military unaccompanied housing.

(C) Proceeds from the conveyance or lease of property or facilities under section 2878 of this title for the purpose of carrying out activities under this subchapter [*10 USC § § 2871 et seq.*] with respect to military unaccompanied housing.

(D) Income derived from any activities under this subchapter [*10 USC § § 2871 et seq.*] with respect to military unaccompanied housing, including interest on loans made under section 2873 of this title, income and gains realized from investments under section 2875 of this title, and any return of capital invested as part of such investments.

(E) Any amounts that the Secretary of the Navy transfers to that Fund pursuant to section 2814(i)(3) of this title, subject to the restrictions on the use of the transferred amounts specified in that section.

(F) Any amounts that the Secretary concerned transfers to that Fund pursuant to section 2869 of this title.

(d) Use of amounts in Funds.

(1) In such amounts as provided in appropriation Acts and except as provided in subsection (e), the Secretary of Defense may use amounts in the Department of Defense Family Housing Improvement Fund to carry out activities under this subchapter [*10 USC § § 2871 et seq.*] with respect to military family housing, including activities required in connection with the planning, execution, and administration of contracts entered into under the authority of this subchapter [*10 USC § § 2871 et seq.*]. The Secretary may also use for expenses of activities required in connection with the planning, execution, and administration of such contracts funds that are otherwise available to the Department of Defense for such types of expenses.

(2) In such amounts as provided in appropriation Acts and except as provided in subsection (e), the Secretary of Defense may use amounts in the Department of Defense Military Unaccompanied Housing Improvement Fund to carry out activities under this subchapter [*10 USC § § 2871 et seq.*] with respect to military unaccompanied housing, including activities required in connection with the planning, execution, and administration of contracts entered into under the authority of this subchapter [*10 USC § § 2871 et seq.*]. The Secretary may also use for expenses of activities required in connection with the planning, execution, and administration of such contracts funds that are otherwise available to the Department of Defense for such types of expenses.



(3) Amounts made available under this subsection shall remain available until expended. The Secretary of Defense may transfer amounts made available under this subsection to the Secretaries of the military departments to permit such Secretaries to carry out the activities for which such amounts may be used.

(e) Limitation on obligations. The Secretary may not incur an obligation under a contract or other agreement entered into under this subchapter [*10 USC* § § 2871 et seq.] in excess of the unobligated balance, at the time the contract is entered into, of the Fund required to be used to satisfy the obligation.

(f) Notification required for transfers. A transfer of appropriated amounts to a Fund under paragraph (1)(B) or (2)(B) of subsection (c) may be made only after the end of the 30-day period beginning on the date the Secretary of Defense submits written notice of, and justification for, the transfer to the appropriate committees of Congress or, if earlier, the end of the 14-day period beginning on the date on which a copy of the notice and justification is provided in an electronic medium pursuant to section 480 of this title.

(g) Limitation on amount of budget authority. The total value in budget authority of all contracts and investments undertaken using the authorities provided in this subchapter [*10 USC* § § 2871 et seq.] shall not exceed--

- (1) \$ 850,000,000 for the acquisition or construction of military family housing; and
- (2) \$ 150,000,000 for the acquisition or construction of military unaccompanied housing.

**HISTORY:** (Added Feb. 10, 1996, P.L. 104-106, Div B, Title XXVIII, Subtitle A, § 2801(a)(1), 110 Stat. 548; Sept. 23, 1996, P.L. 104-201, Div B, Title XXVIII, Subtitle A, § 2804, 110 Stat. 2788; Oct. 5, 1999, P.L. 106-65, Div B, Title XXVIII, Subtitle A, § 2802(b), 113 Stat. 848.)

(As amended Nov. 24, 2003, P.L. 108-136, Div A, Title X, Subtitle D, § 1031(a)(51), Div B, Title XXVIII, Subtitle A, § 2805(c), 117 Stat. 1603, 1721.)

### *10 USC § 2883a (2003)*

#### **§ 2883a. Funds for housing allowances of members of the armed forces assigned to certain military family housing units**

(a) Authority to transfer funds to cover housing allowances. During the fiscal year in which a contract is awarded for the acquisition or construction of military family housing units under this subchapter that are not to be owned by the United States, the Secretary of Defense may transfer the amount determined under subsection (b) with respect to such housing from appropriations available for support of military housing for the armed force concerned for that fiscal year to appropriations available for pay and allowances of military personnel of that same armed force for that same fiscal year.

(b) Amount transferred. The total amount authorized to be transferred under subsection (a) in connection with a contract under this subchapter may not exceed an amount equal to any additional amounts payable during the fiscal year in which the contract is awarded to members of the armed forces assigned to the acquired or constructed housing units as basic allowance for housing under section 403 of title 37 that would not otherwise have been payable to such members if not for assignment to such housing units.

(c) Transfers subject to appropriations. The transfer of funds under the authority of subsection (a) is limited to such amounts as may be provided in advance in appropriations Acts.

**HISTORY:** (Added Dec. 28, 2001, P.L. 107-107, Div B, Title XXVIII, Subtitle A, § 2804(a), 115 Stat. 1305.)

### ***10 USC § 2884 (2003)***

#### **§ 2884. Reports**

(a) Project reports.

(1) The Secretary of Defense shall transmit to the appropriate committees of Congress a report describing--

(A) each contract for the acquisition or construction of family housing units or unaccompanied housing units that the Secretary proposes to solicit under this subchapter [*10 USC § § 2871 et seq.*]; and

(B) each conveyance or lease proposed under section 2878 of this title.

(2) The report shall describe the proposed contract, conveyance, or lease and the intended method of participation of the United States in the contract, conveyance, or lease and provide a justification of such method of participation.

(3) (A) In the case of a contract described in paragraph (1) proposed to be entered into with a private party, the report shall specify whether the contract will or may include a guarantee (including the making of mortgage or rental payments) by the Secretary to the private party in the event of--

(i) the closure or realignment of the installation for which housing will be provided under the contract;

(ii) a reduction in force of units stationed at such installation; or

(iii) the extended deployment of units stationed at such installation.

(B) If the contract will or may include such a guarantee, the report shall also--

(i) describe the nature of the guarantee; and

(ii) assess the extent and likelihood, if any, of the liability of the United States with respect to the guarantee.

(4) The report shall be submitted not later than 30 days before the date on which the Secretary issues the contract solicitation or offers the conveyance or lease.

(b) Annual reports. The Secretary of Defense shall include each year in the materials that the Secretary submits to Congress in support of the budget submitted by the President pursuant to section 1105 of title 31 the following:

(1) A report on the expenditures and receipts during the preceding fiscal year covering the Funds established under section 2883 of this title.

(2) A methodology for evaluating the extent and effectiveness of the use of the authorities under this subchapter [*10 USC* § § 2871 et seq.] during such preceding fiscal year, and such recommendations as the Secretary considers necessary for improving the extent and effectiveness of the use of such authorities in the future.

(3) A review of activities of the Secretary under this subchapter [*10 USC* § § 2871 et seq.] during such preceding fiscal year, shown for military family housing, military unaccompanied housing, dual military family housing and military unaccompanied housing, and ancillary supporting facilities.

(4) If a contract for the acquisition or construction of military family housing, military unaccompanied housing, or dual military family housing and military unaccompanied housing entered into during the preceding fiscal year did not include the acquisition or construction of the types of ancillary supporting facilities specifically referred to in section 2871(1) of this title, a explanation of the reasons why such ancillary supporting facilities were not included.

(5) A description of the Secretary's plans for housing privatization activities under this subchapter: (A) during the fiscal year for which the budget is submitted; and (B) during the period covered by the then-current future-years defense plan under section 221 of this title.

**HISTORY:** (Added Feb. 10, 1996, P.L. 104-106, Div B, Title XXVIII, Subtitle A, § 2801(a)(1), 110 Stat. 550.)

(As amended Nov. 24, 2003, P.L. 108-136, Div B, Title XXVIII, Subtitle A, § 2807, 117 Stat. 1722.)

### ***10 USC § 2885 (2003)***

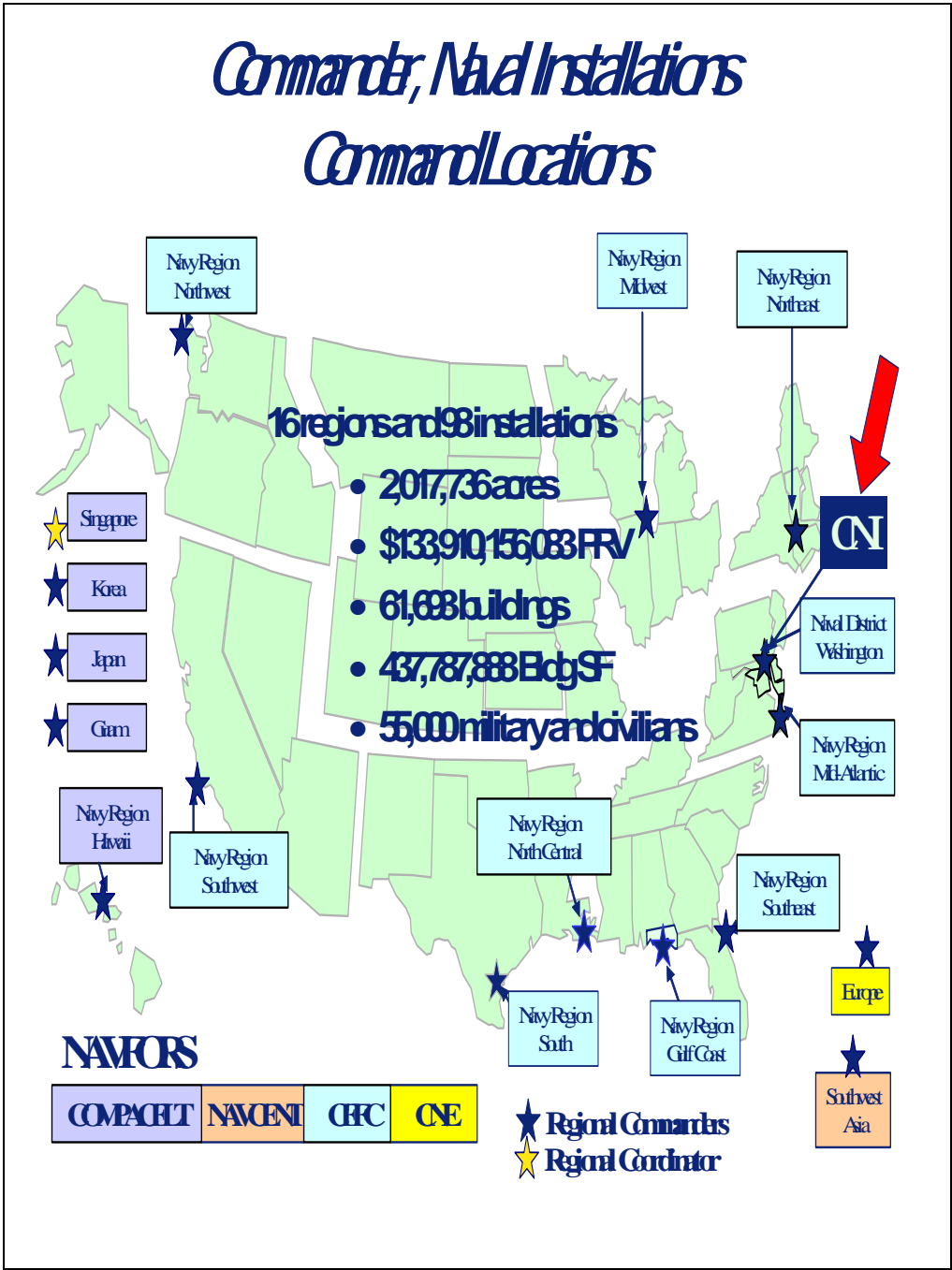
#### **§ 2885. Expiration of authority**

The authority to enter into a contract under this subchapter [*10 USC* § § 2871 et seq.] shall expire on December 31, 2012.

**HISTORY:** (Added Feb. 10, 1996, P.L. 104-106, Div B, Title XXVIII, Subtitle A, § 2801(a)(1), 110 Stat. 551; Nov. 18, 1997, P.L. 105-85, Div A, Title X, Subtitle G, § 1073(a)(61), 111 Stat. 1903; Oct. 30, 2000, P.L. 106-398, § 1, 114 Stat. 1654; Dec. 28, 2001, P.L. 107-107, Div B, Title XXVIII, Subtitle A, § 2805, 115 Stat. 1306.)

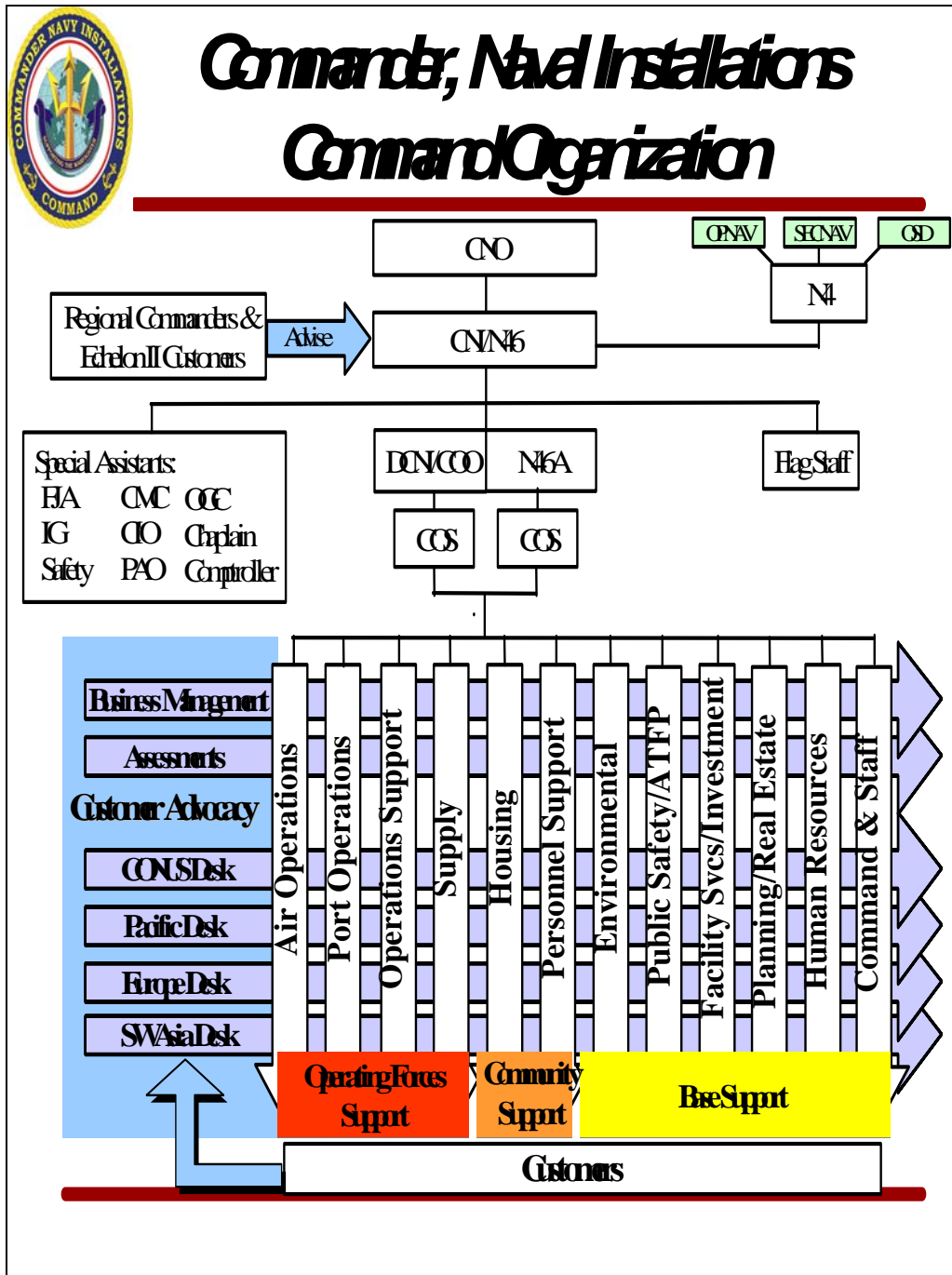
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APPENDIX B. CNI COMMAND LOCATIONS



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## APPENDIX C. CNI COMMAND ORGANIZATION



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